

American Aviation

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The Independent Voice of American Aeronautics

AUGUST 15, 1946

Air Power Thru Commerce

THE THIRTY-NINTH anniversary of the Army Air Forces was celebrated fittingly on August first and the slogan "Air Power is Peace Power," used on the occasion, has been given considerable attention.

While we won't dispute the rather well-tested thesis that preparedness makes for peace, we believe that the

program which is most closely attuned to the American people through tradition and experience is based upon power through industry and commerce. The mere struggle for military power without a concomitant strength in industry can

wilt into thin air as other nations with much military pomp and few or limited industrial resources have discovered.

Like everyone else we know of in aviation, we want to see the AAF maintained in strength. This means not only an able and well-equipped air fighting force, but a strong manufacturing industry and a great deal of effort placed upon scientific research and experimentation.

But let us not forget that the best way of obtaining air power is through a strong commercial aviation, and by this we mean not only the air transport industry but the local operators, the flight training schools, the personal plane owners and pilots, the charter operators, and the large and growing field of non-scheduled operations.

In this day of the atomic bomb and guided missiles, it seems clear enough that the AAF will rely in the future on the transport airplane far more than it ever dreamed of doing five years ago. In the future it is not too much to say that the transport airplane (whether for troop-carrying or for cargo) will equal or surpass in importance many a purely military type which before World War II was considered to be the backbone of air power.

Air power is an all-embracing phrase and it connotes not only striking power but transport power. We saw how the late unpleasantness was a war of movement and it would have been much more a war of movement had the strategies and planning been more in line with the war in the air, and if so much of the planning hadn't been worked out on ground procedures of wars gone by.

The Army Air Forces can well ponder the contribution which civil and commercial aviation made to the nation's air strength in the twenty years prior to World War II. So many Army men, whose first knowledge of aviation came when they donned a uniform, seem to think that everything that exists in American aviation today came from the AAF. Nothing could be farther from the truth. The C-47, which veterans are flying today in an effort

(Turn to page 6)

THE NEWS MAGAZINE OF COMMERCIAL AVIATION

25c

Fortnightly Review



Heads New Feederline

Joseph Garside is president of Wiggins Airways, newly certificated feederline carrier, which soon will begin operations between Boston and Albany, N. Y. Garside has been associated with Wiggins since its incorporation in 1930 to engage in fixed base operations at Norwood, Mass., and later Boston. He holds a commercial pilot rating.

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Another *first* for the U. S. Navy

For the first time in history, a jet-propelled plane specifically designed for carrier use has successfully landed and taken off from an aircraft carrier. This "first" belongs to our Navy's brand-new jet fighter, the

Phantom, which repeatedly landed and took off from the U. S. S. Franklin D. Roosevelt on July 21, 1946. The Phantom brings new laurels to its co-developers . . . the United States Navy and McDonnell Aircraft.

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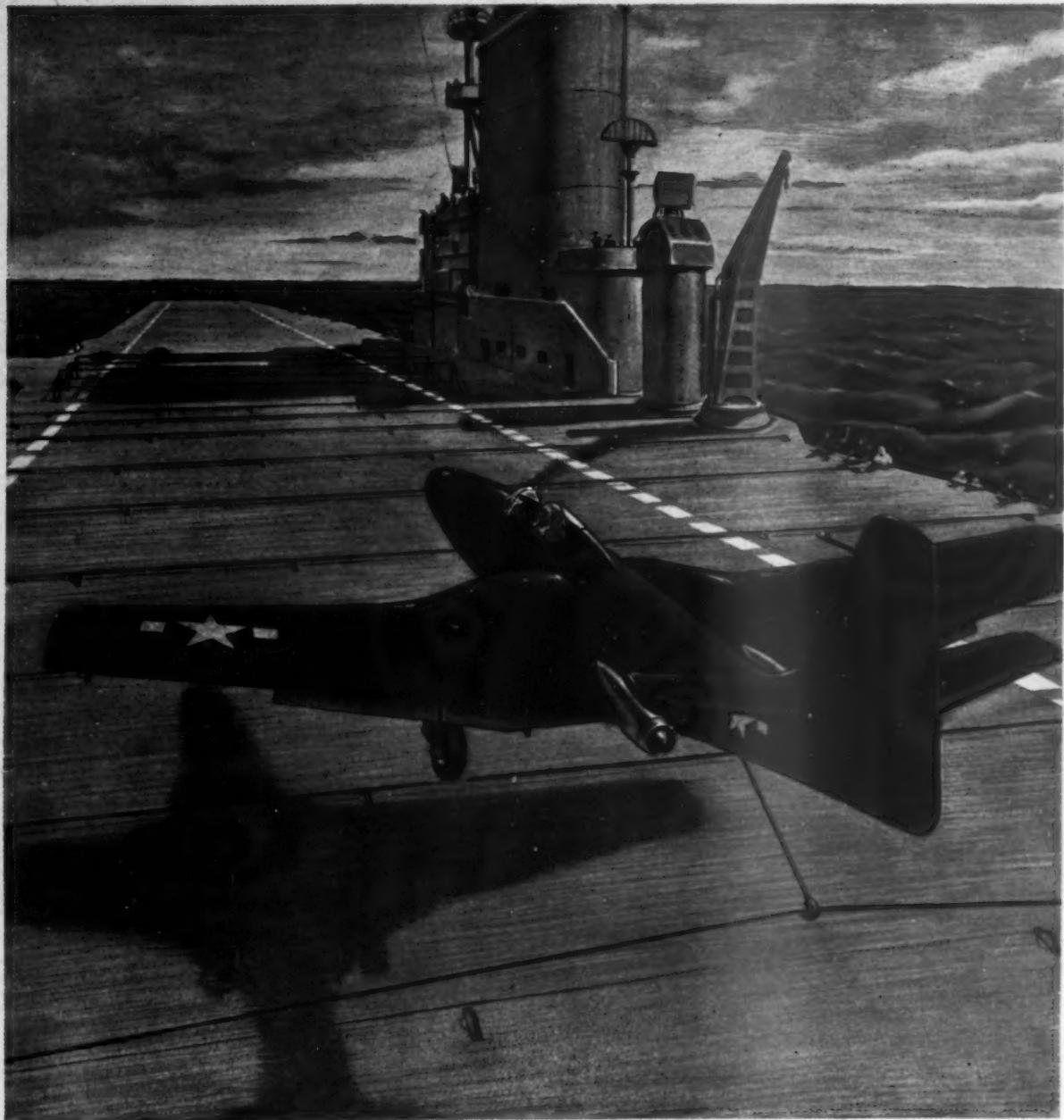


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American Aviation

Volume 10 Number 6

The Independent Voice of American Aeronautics

August 15, 1946



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International Aviation: A weekly newsletter of aviation trends and news in foreign countries. Published on Friday of each week and dispatched via first-class surface mail. Editorial representatives in foreign capitals. Subscriptions: \$100 one year (52 issues). Airmail delivery available at additional cost to cover postage. Service Bureau available to all subscribers. FRANK M. HOLZ, Managing Editor.

American Aviation Directory: Published twice a year, Spring and Fall. Complete reference data on administrative and operating personnel of airlines, aircraft and engine manufacturers, accessory and equipment manufacturers, organizations, schools, U. S. and foreign aviation groups and departments etc. Completely cross-indexed by companies, activities, products and individuals. Single copy \$5.00. Spring-Summer 1946 issue now available. DAVID SHAWE, Managing Editor.

American Aviation Traffic Guide: Monthly publication of airline schedules, rates and regulations for passenger and cargo transportation by commercial air transport. Supplements furnished subscribers covering changes occurring between issues. Subscriptions: U. S. and Latin America \$7.50 one year (12 issues and supplements); Canada \$8.00. All other countries \$9.00. Published and revised from editorial offices at 139 North Clark Street, Chicago 2, Illinois. (Telephone: State 2154). H. D. WHITNEY, Managing Editor.

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AiResearch "Cabin Comfort" equipment will condition the newest Lockheed Constellation which will fly this fall and is being furnished for the newest planes of Consolidated Vultee, Douglas, Boeing, North American, Republic and Northrop.

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Editorial

(Continued from Page 1)

to carve out a niche in commercial aviation, was 100% a commercial product developed by the airlines. When the war started the AAF didn't have a single order for a transport airplane on the books. Yet the C-47 became an integral part of American air power.

The American public likes to get a dividend in its expenditures for government. In a strong commercial aviation the public can get many rewards while at the same time knowing that a strong commercial aviation leads to, and means, a strong air power.

The AAF must maintain vital bases, it must continue to train, and to fly, and to engage in research. But collaboration with civil and commercial aviation will increase its potential strength many times over. Even the Air Power League can take a leaf out of the book. By cooperating with such civil organizations as the National Aeronautic Association, we can have more and more airports, more airways, better landing approach facilities, more pilots and more airplanes. Before the war the airlines were the testing laboratory—the proving grounds—for engines, airplanes and all sorts of devices. Real American air power is not just the AAF, but the entire aviation enterprise from the private flyer to the trunk route airline.

The Fortune Blast

IN 1941 the airlines of the U. S. carried 3,700,000 passengers. This year the total will probably reach 11,000,000. In 1941 the airlines flew 1,384,000,000 revenue passenger miles. This year the total will reach 6,000,000.

During the war a great many key personnel of the airlines went into military service. Of this the larger proportion was responsible for building up two global military services which performed miracles of safe air transportation. Also into the war went half of the airline planes.

Most industries had their hectic spells of confusion during the war. The air transport industry ran smack into its stage of confusion immediately after the war. No one in the industry evades the basic fact that there have been, and still are, a great many rough spots in air traffic today. From reservations to baggage, delayed schedules and a thousand and one "slips," the service isn't what it used to be.

Yet airline people generally feel that *Fortune Magazine's* all-out blast at "What's Wrong With the Airlines" (August issue) went far out of its way to slap the airlines. It was a pretty rough article. One got the impression that the writers had been kicked around badly and were trying to take their spite out on the whole industry but didn't know just where to hit and neglected to give a rational and fair appraisal of the postwar situation.

Other essential industries got help during the war and their weaknesses were excused because of the emergency. The airlines were stripped to the bone and had none of the chances of other industries to maintain their organizations or obtain priorities for equipment. If the *Fortune* article is any sample of reward for having sacrificed during the war, the future doesn't bode well. A great many problems, such as airports, are far out of

control of the airlines (which *Fortune* reluctantly admits) but the article as a whole seems filled with spite rather than constructive analysis.

It isn't always pleasant to fly these days, but neither was it pleasant to travel during the war on railroads and buses, when those methods of transport were experiencing the same problems that now face the airlines. The *Fortune* article was a bad and unfair break for an industry that has tried hard to build up a fine transportation system.

The Connies Will Fly

WITHIN A FEW weeks the Constellation will be flying again and full credit goes to the manufacturer and the airline operators who haven't swerved from their intention of living through some of the most unfortunate waves of unfavorable publicity than any airplane has ever had.

The press stories, through no fault of the wire services or the newspapers, were far worse than necessary. The confusion resulting from the chain of government procedures, plus a blunder by a minor legal employee of the Civil Aeronautics Board, brought about newspaper headlines screaming "permanent grounding" which was harmful to the whole industry.

There was a series of errors in the Constellation handling which is worth setting down for the record only because the lesson may result in better handling at some future time.

The first error was within the CAA, which handled the Connie grounding in pure routine fashion. Not a single CAA official called a single Lockheed or Wright official to advise them that certain steps were being taken. Lockheed read about it in the newspapers. The second error came when the manufacturing companies, not wanting to be put in the position of battling the government, sent no key officials for a long time to Washington to find out what the procedures involved. In bending over backwards to be fair and to let the government take whatever action it saw fit, the manufacturing companies unnecessarily hurt themselves. The government officials wanted the company officials and attorneys to collaborate.

Third error was when a CAB attorney, on his own initiative, called the wire services early one morning to give out the startling information that the Connies were to be grounded permanently. Just what he told the wire services isn't known, but in his self-created excitement, he served to produce sensational news headlines from coast to coast which were not based on the facts. Fourth error, the least of the four, was when CAA attempted to straighten out this news confusion by issuing an "explanatory" release which was written in such legal terminology that only an expert could figure out what was happening.

But the hearing is over, the CAA has issued its list of modifications, the Connies are being modified, and they will soon be flying again. The tragedy is that the name of a fine manufacturer, and the name of a fine airplane, was made unnecessarily black because of a series of poor judgments.

WAYNE W. PARRISH

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Wings of Yesterday

15 Years Ago

U.S.S. "Akron" (ZRS-4) was christened by Mrs. Herbert Hoover at Akron, Ohio. (Aug. 8, 1931).

Capt. Wolfgang von Gronau, with Edward Zimmer, Fritz Albrecht, and Franz Hack, flew from List, Isle of Syt, North Sea, to Chicago, Illinois, via Iceland, Greenland, Labrador and Canada. The flight was made in a Dornier-Wal flying boat equipped with a B.M.W. motor. (Aug. 8-Sept. 1, 1931).

The Dornier Do-X, flying boat equipped with Curtiss Conqueror engines, arrived in New York, having left Altenrhein, Switzerland, Nov. 5, 1930, and flown via Africa and South America. (Aug. 27, 1931).

National Air Races were held at Cleveland, Ohio. (Aug. 29, 1931).

"Graf Zeppelin" flew from Friedrichshafen, Germany, to Pernambuco, Brazil, and returned. (Aug. 29-Sept. 7, 1931).

25 Years Ago

The Gallaudet Aircraft Corp. completed multiple engine drive and geared propeller system at East Greenwich, Rhode Island. (Aug. 15, 1921).

U. S. Air Mail Service completed wireless communication system from New York to San Francisco. (Aug. 15, 1921).

Loening Monoplane, Flying Yacht, made an altitude record flight for hydro-airplanes, 19,500 feet, with four persons, over Port Washington, New York. (Aug. 16, 1921).

Dirigible airship Z.R.-3 (British R.-38) collapsed in flight over Hull, England killing 44 officers and men of the Royal Air Force and the American Navy. (Aug. 24, 1921).

Bill 2448 was introduced into the Senate by Senator James W. Wadsworth, Jr., to create a Bureau of Civil Aviation in the Department of Commerce. (Aug. 24, 1921).

The American Bar Association recommended Federal aerial legislation. (Aug. 25, 1921).

Letters

No-Show Problem

To the Editor:

This is the first time in my life that I have ever written a letter to any editor commenting on anything that may have appeared in any publication. But, I feel that the article titled "Penalize the No-Shows" in the July 15 edition of AMERICAN AVIATION is worthy of comment.

For your information, I have flown over one million miles in the U. S. on commercial airlines alone in the last 15 years . . . I am a private pilot of long standing with both land and sea rating.

I feel that your article is one hundred percent correct! Only—I don't think it has

been written in a strong enough vein. Unless you travel as much as I do on as many different airlines as I travel on, you cannot fully realize what this "no-show" business really is. But through it all, it is impossible to blame the public. The blame rests entirely and wholly with the airlines themselves. They have educated the public in this matter and it is needless for me to tell you that the public is eager to take advantage of any situation regardless of what the situation might be. "No-shows" have reached such staggering proportions that I have seen as many as eight people not show up for a 21-passenger flight. And—the public knows this and there are many of my friends who now go to an airport without any reservations whatsoever knowing that they can get on a plane because of "no-shows."

I say this is all the airlines' fault because before the war, when air travel was not as popular as it is today, airlines pampered and catered to the air traveler. They held planes for their arrival at an airport—they did everything to get people to use planes for traveling. And now that air travel has come into its own, they haven't progressed with the volume of business and the public knows it and takes advantage of it. Will a railroad line hold up the departure of a train for late arrivals? I should say not! Will the train companies allow you to make reservations for a trip a month in advance and allow Pullman space to be held on reservation without purchasing same until a day before the scheduled departure? I should say not! But—the airlines do just that and in some instances they just keep on holding space until plane departure. The net result is "no-shows."

Air travel today is such that if it weren't for the fact that a business man relied on the speed which air travel has to offer—I, for one, would never step my foot in a commercial air liner. The airlines with their present added business both in freight and passenger travel have lost sight completely of how to handle the public. Plane departures and arrivals, except for bad weather, are never adhered to. I haven't ridden on a plane that either left on time or arrived on time in such a long time that, frankly, I wouldn't know how it felt.

In conclusion, let me say that my feeling in the matter is that the airlines themselves are entirely to blame regardless of the inconvenience the public causes them. And, in turn, those passengers who buy their tickets, arrive on time to catch their plane are the ones who suffer the inconvenience of air travel.

ADRIAN LEVY
San Francisco, Calif.

Veterans' Benefits

It would appear with the anticipated expansion in this industry that all airlines could apply for this—or else, at least get together on it and all act in the same manner. We veterans with the uncooperating airlines feel we deserve no "special" benefits because we served, but feel we should at least be permitted to benefit from a law passed for our betterment. Likewise, it would seem that airlines offering this additional incentive could employ more and better technically trained men at their usual starting wage—and in this way, both employer and employee would gain.

Perhaps I am mistaken on the above information, but such is the data I have received and I feel publication of this contradictory attitude by different airlines in your aggressive publication might do much to eradicate the situation.

AN AIRLINE EMPLOYEE

Technician Shortage

To the Editor:

I have been reading your magazine with interest for the past few years. Lately I have read and heard the general opinion of the AAF is that they are short of skilled technicians.

For the past three years I have been in the aircraft business as an instrument overhaul and line trouble shooter, also electrical trouble shooter of all electrical circuits of the planes.

I was schooled on all types of instruments from the direct pressure gauge to the autopilot system, gyro to servo units.

This time was spent with the Naval Air Transport Service and I was in the U. S. N. R.

I was also qualified for and did instrument test flight work with the Flight Engineers on PBY-5, PB2Y-5, PBM-5, R5-D, R4-D and had quite a bit of experience with the pressurization system on the Connies.

The Army drafted me after being discharged from the U. S. N. R. and I was told with my experience I would be put in the Air Corps, but if this Field Artillery outfit is the AAF I will eat one of the 105 mm howitzers and the cussion that we have to "lug" around.

Could you advise me as to some one I could write to or talk to about this for I certainly do feel hurt about it.

J. H. SESSIONS.
Fort Knox, Kentucky.

(Editor's Note: Your big mistake was ever to tell the Army that you had aviation experience with the Navy. You should have said that you had been in the infantry five years and then you would have been put into the Air Corps immediately. Apparently you are under the impression that the Army and Navy put men into the fields in which they are qualified. Only practical solution (1) pray constantly for the forgiveness of your sins in knowing something about airplanes and (2) try to live down and to forget everything about aviation. When you have forgotten all you know about airplanes, you'll be whisked into the Air Corps. Seriously, we hope the AAF sees this and lifts you out of the Field Artillery.)

No Comparison

To the Editor:

I have read with interest your very interesting article "Battle of Sales Philosophy Shaping Up" which appeared in the July 1st issue of the AMERICAN AVIATION.

I do believe, however, that the comparison used in citing the New York to Washington service by the B. & O. versus the Pennsylvania Railroad is hardly analogous. As you know the B. & O. terminates its trip at Jersey City with the result that the elapsed time from New York to Washington on the Pennsylvania is anywhere from one hour to one and one-half hours shorter than the best B. & O. time. Also passengers do not like the combination bus and ferry service usually encountered when making a trip on the B. & O. Your comparison, I believe, was intended to be directed toward a higher cost "luxury" service as compared with a "coach type" service with operating schedules remaining the same and such is not the case in the comparison cited.

OWEN F. JOHNSON,
New York, N. Y.

Books

THE AIRCRAFT YEAR BOOK FOR 1946. 28th annual edition. Howard Mingo, Editor. 702 pp. Lanclar Publishers, Inc., New York. \$6.00.

This official publication of the Aircraft Industries Association follows the pattern of previous editions. Much of the contents is based on official sources and it is well illustrated.

As in the past, each chapter deals with progress and happenings in each field of aviation, including military, commercial transport, private flying, technical, airports, federal agencies, aircraft power plants, education and the like.

There is a directory section which is only fairly accurate and up-to-date and with such glaring omissions as American Airlines, Pan American Airways, Eastern Air Lines and others in the air transport section. There are the customary statistics and an index which is only partially adequate.

VITAL PROBLEMS OF AIR COMMERCE. Edited by Lucien Zacharoff. Duell, Sloan & Pearce, Inc., New York. 238 pp. \$3.00.

As a writer, Lucien Zacharoff attended every luncheon meeting of the aviation section of the New York Board of Trade. He listened to many important people in aviation discuss and debate vital problems of the day. The more he listened the more interested he became in gathering together all of the diverse viewpoints into a book.

The result is a collection of luncheon speeches by such top rankers as L. Welch Pogue and Bill Piper, and by a very diversified group inside and outside of aviation. Most of the luncheons were forums, hence there are quite a few controversial issues touched upon pro and con.

One can't conclude that the collection is altogether distinguished, nor yet profound. On the other hand there is a certain timeliness and virility to the contents and Zacharoff's editing has been quite prudent. If one started out to compile a book on the same general subjects, one could find much better and more time-resisting statements. On the other hand, here is a collection of speeches made without any intent of immortality. As a reflection of what people were saying during the past years—the topical slants on aviation—it is a good collection.

W. W. P.

THE AIRCRAFT ANNUAL FOR 1946. By David C. Cooke. Robert M. McBride & Co., N. Y. 304 pp. Illustrated.

This is the third annual edition and evidences considerable revisions. It is well illustrated.

Chapter headings include air transportation, lightplane flying, the national airport plan, war in the air, AAF, Naval aviation, strategic bombing, descriptions of new airplanes, and a report on the manufacturing industry.

THE BUSINESS LAW OF AVIATION. By Gerald O. Dykstra and Lillian G. Dykstra. 523 pp. McGraw-Hill Book Co., New York. \$5.00.

This book analyzes federal and state aeronautical statutes, and presents and discusses leading court decisions, especially for reference and use. It is prepared for pilots, airport managers, mechanics, airline employees, insurance agents, airplane salesmen and others concerned with aviation. It discusses taxes, ownership and operation of airports, trespass, nuisance, negligence, duties of carrier to passenger, coverage of insurance, workmen's compensation, contracts, bailments, penalties and crimes, and international aspects of aeronautics.

SOARING FLIGHT, by Terence Horsley; Current Books, Inc.; 326 pages; \$4.00.

An up-to-date, definitive book on motorless flight, written by a seasoned glider pilot who combines a technical treatment of the subject along with anecdotes and personal experiences. Students of aerodynamics and aeronautics may glean a wealth of technical information from the text and gliding enthusiasts may become acquainted with every phase of motorless flight, from launching to landing. Supplemented by 40 actual photographs, there are chapters covering meteorology, blind flying, soaring sites, records and glider organizations.

PILOTS' POCKET INFORMATION FILE. Published by Occidental Publishing Co., 304 S. Broadway, Los Angeles 13. \$1.00.

The publishers of *Western Flying* have provided pilots with a very handy pocket-size booklet containing a lot of valuable information. One of the most important features is a directory of airports in 13 western states giving essential information about the fields approaches, facilities and considerable additional data in the way of comments. Other material includes radio range data, airways facilities chart, condensed civil air regulations, lightplane specifications and performance data, gas tax information, aviation records and rules for entering Canada and Mexico. A good job throughout.

RECENT AERONAUTICAL LITERATURE. A selective subject index for 1945. Compiled and edited by Willard Kelso Dennis, librarian, Beech Aircraft Corp., Wichita, Kansas. \$5.00.

Mr. Dennis' index or bibliography for 1945 is the only specialized one in aviation for that period. It is usable in its present cumulative form, but it is limited in its coverage. He has indexed 26 U. S. aviation periodicals, 8 British and Canadian, 9 general scientific, and about a dozen house organs. There is an over-balanced emphasis on training and manufacturing. Omissions and poor evaluation and/or selectivity are evident.

THROUGH THE STRATOSPHERE. The Human Factor in Aviation, by Maxine Davis; The MacMillan Co., New York City. 253 pp., \$2.75.

In a lively narrative style, Miss Davis tells the little publicized story of the medical profession's contributions to flying. It is a reporter's record of the development and use of a vast number of devices evolved by the military air forces for keeping fliers healthy, happy, and in the air.

Although the author has drawn entirely on the experience of an air force in the midst of war, this is a war story with wide peacetime implications.

Booklets

The War Assets Administration has recently issued a buyer's guide listing types and brief descriptions of surplus aeronautical property now being offered for sale and instructions on how and where to buy this material. The bulletin, "How To Buy Surplus Aircraft Components and Parts," contains an overall statement on aircraft that can be certified for civilian use. There is information concerning priorities, discounts and installment payments and worthwhile tips to those who would invest in the surplus now available. Copies of the publication may be obtained from the Office of Aircraft Disposal, WAA, 425 Second St. N.W., Washington 25, D. C., or from WAA regional offices.

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Background

(Significant Developments and Forces)

Philly Welcomes Airplanes: Now that J. Victor Dallin has put away his uniform and returned to Philadelphia as chief of the bureau of aeronautics, Philly has put out the welcome sign to all airplanes. Gas and oil is now on sale at both the southwest and northeast city airports 24 hours a day and—quite important these days—there is no landing fee for privately-owned airplanes at either airport.

Wrong Impressions Created: A serious misimpression was created by reports of the testimony of Comptroller General Lindsay Warren before the Senate Mead Committee investigating war profits which has reflected unfairly upon aircraft manufacturers. Warren complained vigorously against the practice of war contract termination officers taking jobs with firms for which they had handled war contract negotiations or terminations in their official Government capacities. Actually, so far as the aircraft field is concerned, Warren named only two relatively unimportant firms where this practice was involved—Howard Aircraft Corp. and Northwestern Aeronautical Corp. His subsequent testimony listed cost disallowances of several million dollars under cost-plus-fixed-fee contracts which were refunded to the Government after Government Accounting Office auditors had completed their audits. These refunds—which were made by such firms as Boeing, Lockheed, Convair, Curtiss-Wright, Bell, Ford, Douglas and Fairchild—were in no way connected with the practice of some other firms in hiring former termination officers. They were simply refunds occurring in the process of winding up wartime business. The Mead Committee definitely does not have an axe out for the aircraft industry.

Flying Schools Get Checks: Aviation service operators, who have been giving flight training to veterans under the G. I. Bill of Rights, are showing signs of being happy once more—and with good reason. Those long overdue checks from the Veterans Administration, sponsors of the nationwide project, have started coming through. The majority of the checks are in five figures because many of the operators hadn't received a payment since they inaugurated their G. I. programs, as far back as early spring. Several Pennsylvania operators, the first to report their collections, announced that they had received payments to cover every statement they had submitted to date. The bottleneck was broken when anxious operators went over the heads of their local VA officials and descended on the national headquarters in Washington. Administration officials explained that only a shortage of personnel had held up the payments.

Stand-By Plant Program: The selection by President Truman of Donald Nelson, former War Production Board chairman, to make a study of an Army-Navy stand-by plant program under which Government-owned plants would be kept in readiness for future emergencies is of special interest to aircraft manufacturers. Nelson, during his WPB days, learned a great deal about the aircraft industry, its potentials and its needs. Manufacturers expect a sympathetic and thorough treatment of the problem of stand-bys when he makes his report. The Army-Navy Munitions Board has proposed a \$3,500,000,000 program under which the War and Navy Departments would acquire or lease standard government-owned plants and facilities essential to national security. Unfortunately, one year after the end of the war, is a belated time to do what should have been done many months ago.

Jets, Atom Engines, Missiles: One of the important recent developments was the awarding by the Navy to the Ryan Aeronautical Co. of a basic contract for a metallurgical research program in connection with development of new types of materials suitable for jet power plant and exhaust systems equipment. Progress already has been made in the development of heat-resistant alloys and their fabrication—but much remains to be done yet before the high speed engines of the future reach their full potential. With Ryan doing the metallurgical research, Fairchild heading up the aircraft atom-engine program, and Douglas doing more and more with rockets, the aircraft industry definitely is out in front in the development of guided missiles and the super planes that the military foresee.

Manpower Troubles Again: Many aircraft manufacturers, finding themselves with a surprisingly good volume of new military and commercial orders, are having trouble hiring skilled personnel for engineering development, tooling, etc. No one knows where all the wartime engineers have gone, but for some manufacturers manpower is just as tough a problem as it was during the war. Considering that they no longer can keep key people away from Selective Service, it may be tougher. Materials, as well as manpower, continue to raise havoc with production schedules. Structural metals and fabricated components can rarely be ordered with expectation of immediate delivery, and replies from most suppliers indicate delays ranging from a few weeks up to, in many instances, 40, 50 and even 60 weeks. Manufacturers tend to blame price controls rather than actual shortages for much of their trouble.

Airport Projects Face Federal Review: The Federal aid airport program will not be immediately affected by the order issued Aug. 6 by Reconversion Director John R. Steelman directing that all Federal agencies stop the awarding of construction contracts until Oct. 1, a Civil Aeronautics Administration spokesman said. The CAA, he explained, will not be prepared to award contracts under its airport plan until late this year or early next, after the expiration of the current moratorium initiated to conform to President Truman's anti-inflation budget. However, it is expected that airport construction contracts will be affected by terms of the directive which order that all Federal agencies submit for Civilian Production Administration approval those projects scheduled to start between Oct. 1 and Mar. 31. Small projects costing \$3,000 or less are not restricted by the directive.

Extra Fare: American Airlines and United Air Lines plan to follow the example set by TWA with its Constellations and charge an extra fare on Douglas DC-6 flights when the 300 mile an hour pressurized ships go into service. This further evidence that tariffs on the domestic airlines are headed toward two classes of fares—one which might be called a standard fare and the other to apply to fast, deluxe, four-engine equipment. Count the surcharge for berths and sleeper equipment and there actually will be three fares.

Patterson Unfriendly: Secretary of War Patterson is still on the unfriendly side as far as airlines go. Airlines can't figure out why he has been so uncooperative; he has been since 1941.

Early Handling: Regional route cases pending before CAB are scheduled for early handling. CAB already has given its decisions in five of the 11 area cases. Two more decisions will be out very shortly, leaving five to be acted upon. Examiners' reports are expected soon on some of these.

Unfounded Rumors: A number of rumors of changes and conflicts within the air transport industry have no foundation in fact, and continue to be embarrassing to the principals involved. Industry is much more stable than the recent top personnel changes, which are relatively few in number, would indicate.

Halsey's Status: What Fleet Admiral William S. Halsey, Jr., will do about taking the vice presidency of Pan American Airways' transpacific services is not yet known. Adm. Halsey is still in the Navy, is now on a trip through South America. PAA says the job is still his, and the company is anxious for him to have it. But complicating the situation is the fact that legislation which passed the last session of Congress retires Halsey at full pay and allowances, an action reportedly taken so that he would not have to take a job in private industry.

Priority Kickback: Veterans who have had priority on purchase of surplus transport equipment are willing to sell to airlines—at very greatly marked up prices. Airlines, which sorely need some types of equipment, have refused to pay the holdup prices.



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FIRST IN RUBBER

CAB Creates 2 Round-the-World Routes

Northwest Awarded Route To Shanghai To Connect With TWA; Pan American Gets Pacific Extension

TWO U. S.-operated round-the-world air routes, one made possible by the award of a North Pacific route to Northwest Airlines, which will connect with TWA in Shanghai, and the other to be operated all the way by Pan American Airways, were established by the Civil Aeronautics Board on Aug. 1 in its long-awaited Pacific decision. (See map below).

The round-the-world routes result from the establishment of the new Pacific lines and their connection with routes awarded in the North Atlantic decision. One of the latter lines—TWA's—was extended to make the connection possible.

Northwest received a route estimated at over 10,000 miles, one leg of which starts from the co-terminals New York and Chicago via Minneapolis-St. Paul and Edmonton to Anchorage, Alaska, where it is joined by a Seattle-Anchorage leg, and on to Kurile Islands, Tokyo, Seoul (Korea), Shanghai and Manila. Also awarded NWA was a leg from Tokyo to Shanghai via Harbin, Mukden and Dairen, all in Manchuria, and Peiping and Nanking in China. The certificate is issued for a period of seven years.

Pan American's already-certified route into Hong Kong was extended to that portion of India north of the 20th parallel via Saigon, French Indo-China;

Bangkok, Thailand, and Rangoon, Burma. This will enable PAA to connect at Calcutta with its route to the U. S. through Europe. The certificate is effective until July 4, 1952.

Another important PAA extension, good for seven years, was from Midway direct to Tokyo, Shanghai and Hong Kong. Still another amendment extended PAA's route from Manila to Batavia, Java, via Saigon and Singapore, for the same seven-year period.

PAA was also certificated to serve Australia, by extension of its U. S.-New Zealand route from Noumea, New Caledonia, to Sydney. It also received a cut-off on its mid-Pacific route from Honolulu to Wake, eliminating Midway on the line to Manila.

All of PAA's Alaskan certificates were consolidated, with Seattle and Fairbanks designated as terminals, and Ketchikan, Burwash Landing and Tanacross as intermediate points.

TWA, which was certificated to Bombay and Ceylon in the North Atlantic case, was extended to operate from that part of India south of the 20th parallel to Shanghai via Calcutta, Mandalay, Hanoi and Canton, until July 4, 1952. (Calcutta, named in the extension, is north of the 20th parallel.) The extension makes pos-

sible the connection at Shanghai with NWA.

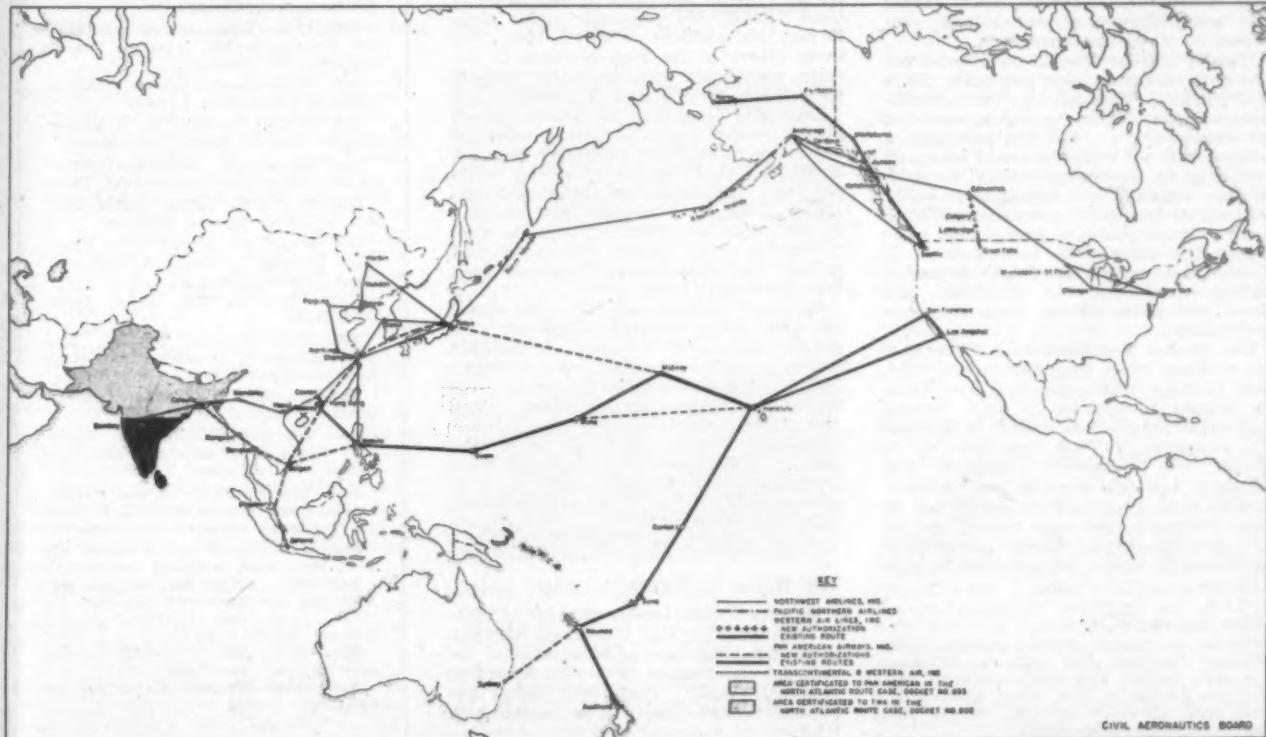
Western Air Lines was authorized to extend service from Lethbridge, Canada to Edmonton, Canada, via Calgary.

Both Alaska Airlines and Pacific Northern Airlines, who had asked for certificates to Seattle, had their applications denied by CAB. The Board said, however, that if PAA and NWA "do not meet the demand of the territory, the Board is not powerless to remedy the situation. . . . An additional carrier can be authorized at any time and the Board can and will act promptly if the existing service proves inadequate." Pacific Northern was extended from Juneau to Anchorage via Cordova and Yakutat.

Applications of PCA and TWA for North Pacific routes, Hawaiian Airlines and U. N. Airships for Central Pacific routes and United Air Lines and Western for Alaskan routes were denied.

The decision, signed by CAB Vice Chairman Oswald Ryan and Members Harlee Branch and Josh Lee, was approved by President Truman on July 31. Branch and Lee also filed concurring and dissenting opinions, Lee favoring two carriers on the northern route, one of which would be PCA. Chairman James M. Landis and Member Clarence Young did not participate.

"Round-the-world cruises by air will substantially reduce the time that was required for round-the-world steamship



cruises before the war and will make possible a maximum of time for the visiting of foreign countries with a minimum of transit time," CAB said. "Single carrier round-the-world service is given increased importance by the fact that connections in foreign travel are more difficult than in domestic travel. It would thus appear desirable to extend Pan American's Pacific route to Calcutta and to authorize TWA to extend its system . . . to Shanghai where connection can be made with Northwest . . ."

Military operations have demonstrated that the North Pacific route is entirely feasible, CAB said, adding that PAA's route to Tokyo via Hawaii will afford "real competition" to the NWA line because the psychological advantage will still lie with the PAA routing.

While the northern route has a distance advantage, it is not too great as concerns California traffic, amounting to from 435 to 650 miles adding only two or three hours of flying to the trans-Pacific trip, the decision pointed out. "It may thus be expected that the advantages possessed by the Central-Pacific route will mean that California will remain the preponderant gateway for travel to and from the Orient for California and the Southwest and that it will also continue to attract considerable traffic to and from points east of the Mississippi."

Regarding PAA's contention that it should be the sole Pacific operator, CAB said this would give PAA "control over every outlet from this country through the Pacific to the Orient. This we deem contrary to the tenor of our decision in the North Atlantic case." The northern route can best be integrated into NWA's system, it stated, adding that PCA and TWA would have to establish facilities in the northwest and the route would be widely separated from their domestic lines. In the central Pacific, Hawaiian Airlines was fit, willing and able, but economic considerations favored extension of PAA rather than establishment of an entirely new service by Hawaiian, it ruled.

Member Harilee Branch dissented from that part of the decision extending TWA to Shanghai. "Not only is there insufficient evidence as to the public need for the extension . . . but this extension, I believe, will not result in sound economic conditions in air transportation," he said. "On the contrary, the extension probably will add such a costly operation to TWA's system as seriously to impair that carrier's entire international operations . . ." Branch also thought that PAA's extension should have been via Mandalay and Hanoi, 800 miles shorter than the route certificated.

Lee favored certification of NWA over the northern route from Seattle and PCA from Chicago, Washington and New York. He suggested extension of PAA beyond Sydney to Darwin and thence to Batavia, and extension of TWA from Bombay to Manila via Colombo, Singapore and Tarakan. Lee said demand for American international air transport should not be underestimated, and gaps should not be left through which foreign competition could furnish service not provided by U. S. carriers.

Olsen Leaves PCA

Harold A. "Dane" Olsen, general traffic manager for PCA, has resigned, following five years service with that company. Previous to coming to PCA, Olsen spent seven years with American Airlines. He has not announced any future plans.



Close Contract: W. A. Patterson, president of United Air Lines, (seated) hands E. E. Miller, assistant sales manager of the Boeing Aircraft Company, papers which call for Boeing to deliver \$11,000,000 worth of four-engined, 340-mile-an-hour double deck Boeing Stratocruisers to United for use on its nation-wide system and on its newly-authorized route to Hawaii. The transaction brings United's new equipment purchases to a total of approximately \$55,000,000.

Airlines Get Awards For Perfect Safety Records In 1945

Not a single fatal accident marred the perfect operations record of 18 U. S. airlines, during 1945, the National Safety Council has reported while announcing its aviation safety awards for the past year. Awards were made on the basis of official records of the CAA.

Among the larger airlines, those flying more than 125,000,000 passenger miles a year, United Air Lines was the group winner for the second consecutive year. At the close of 1945, United had accumulated 1,655,872,324 passenger miles since its last fatal accident on May 1, 1942. The three others in the high brackets to receive awards for perfect safety records were TWA, Braniff and Northwest.

Delta Air Lines won the award for the greatest number of fatality free passenger miles for those lines averaging between 30,000,000 to 125,000,000 passenger miles per year. Delta had flown 311,840,152 passenger miles since its last fatal accident in 1935. Other awards in this group went to Chicago and Southern, Western, Continental, Mid-Continent, Northeast and Pan American-Grace.

Hawaiian Airlines won the chief award for lines flying less than 30,000,000 passenger miles, with a record of 92,987,024 passenger miles since a fatal accident. Individual line awards in this group went to Colonial, American Overseas, Inland Air Lines, Caribbean-Atlantic, Uraba, Medellin & Central and Essair (now Pioneer). In addition to awards to the three group winners, the other airlines with perfect 1945 records will receive certificates of safe operation.

Van Dusen on Leave

William I. Van Dusen, director of public relations for Pan American Airways, is on indefinite leave of absence from the company for reasons of health, according to PAA officials. They deny recent reports that Van Dusen is no longer with PAA.

Aviation Calendar

Aug. 21-23—World Congress of Air Age Education sponsored by Air Age Education Research, International House, New York.

Aug. 22-24—SAE National West Coast Transportation & Maintenance Meeting, New Washington Hotel, Seattle.

Aug. 24-25—Denver International Air Show, Denver, Colo.

Aug. 26—PICAO Caribbean Regional Air Navigation Meeting, Washington, D. C.

Aug. 29—National Aviation Trades Association special membership meeting, Statler Hotel, Cleveland O., 2 p. m.

Aug. 30-Sept. 7—International Air Show, de Havilland Airport, Toronto, auspices National Aeronautical Association of Canada, 400 Confederation Life Bldg., Toronto.

Aug. 30-Sept. 2—National Air Races, Cleveland, O.

Sept. 7—"Air Day in Texas," Harrington, Tex.

Sept. 10-13—Federation Aeronautique Internationale General Conference, London.

Sept. 17—IATA Western Traffic Conference, Rio de Janeiro.

Sept. 19-20—Annual Meeting, National Association of State Aviation Officials, Butte, Mont.

Oct. 1—PICAQ Middle East Regional Air Navigation Meeting, Cairo, Egypt.

Oct. 3-5—SAE National Aeronautics (Fall) Meeting and Aircraft Engineering Display, Biltmore Hotel, Los Angeles.

Oct. 4-5—New York State Aviation Council annual meeting, Buffalo.

Oct. 14-17—National Aviation Clinic, Oklahoma City.

Oct. 16-17—SAE National Transportation & Maintenance Meeting, Hotel Knickerbocker, Chicago.

Oct. 19-21—Third annual "Avista", Las Vegas, Nevada, auspices Junior Chamber of Commerce.

Oct. 23-25—Second Annual Arizona Aviation Conference, Phoenix.

Oct. 24—IAS National Air Transport meeting, Statler Hotel, Washington.

Oct. 29—Annual meeting International Air Transport Association, Cairo.

Oct. 29—PICAQ Meteorological Division meetings resume, Montreal.

Oct. 30—PICAQ Special Radio Technical Division convenes, Montreal.

Nov. 7-8—SAE National Fuels & Lubricants Meeting, Mayo Hotel, Tulsa, Oklahoma.

Nov. 15-24—Eastern Annual Air Show, sponsored by Aircraft Industries Association, Cleveland.

Nov. 19—PICAQ Communications Division resumes, Montreal.

Dec. 2-4—SAE National Air Transport Engineering Meeting, Edgewater Beach Hotel, Chicago.

Dec. 12-13—Second Annual International Aviation Celebration, El Paso, Tex., auspices Chamber of Commerce.

Dec. 17—Tenth Wright Brothers lecture, New York, auspices IAS.

Jan. 10-11, 1947—15th Annual All-American Air Maneuvers, Miami.

Jan. 11-16, 1947—Aviation of Tomorrow Exhibit, Miami.

Jan. 28-30, 1947—Fifteenth annual meeting, IAS, New York.

April, 1947—Western Air Show, Los Angeles.

International Operation Of Connies to be Resumed

Grounding Of Planes Was Only Precautionary Measure

WORLD-WIDE operation of Constellations will be resumed before the end of this month, according to a statement issued Aug. 2 by Robert E. Gross, president of Lockheed Aircraft Corp., following adoption of a modification program agreed to by the Civil Aeronautics Administration, Civil Aeronautics Board, Lockheed, Wright Aeronautical Corp., and airline users of the transport.

While not all of the planes will be ready for commercial operation simultaneously, it is expected that Constellation service late in August will be substantially equivalent to that available prior to the temporary suspension order on July 11, Gross declared. Some 58 of the planes, he said, are involved in services of Pan American Airways, Transcontinental & Western Air, American Overseas Airlines, British Overseas Airways Corp., and Panair do Brasil.

In his first extended public comment on the CAA order grounding the Constellations after a training flight accident at Reading, Pa., the Lockheed president described the CAA action as "entirely a precautionary measure. The nature of the Reading accident itself, in which the airplane was almost completely destroyed, indicated at the time that it might be difficult to determine with any accuracy the cause of the crash. Therefore, pending a thorough investigation, it was felt wise to suspend operation temporarily of the Constellation until unknown factors became known.

Electrical Short-Circuit

"A formal hearing of the CAB in Reading developed the fact that the accident was caused by an electrical short-circuit igniting cabin insulation material. This caused smoke to fill the cabin, blinding the pilot and causing the plane to crash. With the cause determined, technicians of the government, airlines and Lockheed have agreed upon necessary changes in the electrical system to prevent a recurrence of this failure. These changes, which establish new safety standards for any airline transport, will be incorporated in all Constellations before they return to airline service.

"The new safety standards, as worked out for the Constellation, will also be required by regulation in all new modern airplanes of the high-performance category of the Constellation even though they are not yet in airline service."

In addition to the mechanical changes, Gross said that new and more detailed procedures on the maintenance and flight operations of the Connies have been established.

Gross emphasized that the Reading accident, the first for the Constellation in more than 3½ years of flying in which anyone, passenger or crew, sustained injury, occurred during a training flight, when "an emergency condition seldom, if ever, encountered in actual flying was being simulated." The Constellation has flown 182,758,000 passenger miles of sched-

uled airline service without any injury to passenger or crew member.

In announcing adoption of the modification program designed to bring the Constellation back into regular airline service, the CAA indicated that the airlines are making many of the changes in their own shops. The principal changes to be made, CAA explained, include: (1) replacement of bulkhead electrical connectors with redesigned assembly and of aluminum conductors in generator circuits with copper cables; (2) insulation of circuit breakers to eliminate shorting, or their replacement with copper fuses; (3) additional fire extinguisher protection in the rear section of the powerplant installation; (4) installation of improved exhaust collector rings. Other modifications involve the redesign of certain items in the electrical and hydraulic systems.

Subject to satisfactory completion of all required tests, the CAA has approved the program agreed to by the manufacturer and airlines for progressive modification of Constellations to incorporate the improved fuel injection systems. CAA indicated that after modification 50 hours of flight tests would be required before issuance of new airworthiness certificates for those planes still using carburetor engines, while a plane converted to fuel injection must be test flown 150 hours because of the major change involved.

Administrator T. P. Wright declared that the "CAA considers the Constellation design to be fundamentally sound, and with the improvements in equipment being made, we will have no hesitation about approving it for use by the public, whose agents we are."



Joins TWA—Rear Admiral H. B. Miller, veteran Navy flyer and author, has retired after 20 years service, to join TWA as vice-president in charge of public relations. During the years he served as director of public information for the Navy, Miller, better known as "Min," has gained prominence in the publishing and broadcasting fields and has developed a close acquaintanceship with the various phases of civil aviation. He is succeeded in his former Navy post by Captain Ernest McNeill.

Resume Half Fares

Continental Air Lines is the first certified carrier to resume half fare rates for children under 12. This was a common practice before the war and proved an incentive for parents who ordinarily do not like to make long journeys with their offspring. The half fare rate assures a seat for the youngsters while infants under two years of age, carried in arms, will require no tickets.

TWA Adopts Rules, Rates Recommended By Emergency Board

The Airlines Negotiating Committee notified the White House and Air Line Pilots Association that TWA would place in effect Aug. 8 rates and working rules recommended by the presidential emergency board for pilots of four-engine aircraft.

The board, appointed by President Truman May 7 after a threatened strike by TWA pilots, reported its findings and recommendations more than a month ago. Under terms of the Railway Labor Act, which governs airline management-labor relations, no change in status may take place for 30 days following the emergency board report.

ALPA had not indicated its position on the recommendations when the negotiating committee made its announcement. The committee said its efforts to confer with union representatives had met with no success.

The new rates provide pay increases up to 36% for co-pilots in international service and raise the base pay of first pilots in international service \$750 a year, the committee said.

Provision also was made for increases in hourly and mileage pay for both domestic and international operation of faster aircraft. A month's vacation annually will be granted foreign-based trans-oceanic pilots. Those in domestic service receive two weeks' vacation. Raises will be retroactive to the beginning of four-engine operations.

The emergency board also recommended that the committee and union negotiate rates of pay and working rules for the pilots of other airlines involved on the basis of its TWA recommendations. The Committee has requested meetings with the union representatives of these airlines for this purpose and expects that they will be held shortly.

Reorganization Of NATA To Be Discussed Aug. 29

Harry Meixell, who recently resigned as director of the governmental affairs department of the Air Transport Association, has joined the National Aviation Trades Association as Executive Director. A. Lane Cricher, who has been acting as executive secretary for NATA, will serve as general counsel for the organization, with headquarters at 1365 Connecticut Ave., Washington, D. C. Meixell and Cricher will attend a special meeting of NATA members at Hotel Statler, Cleveland, Aug. 29, to discuss a complete reorganization of the association.

Eastern Sets Up Advisory Boards to Promote Service

Streamlined Executive Plan Has System Representation

In a move to streamline its operations and administrative procedures, Eastern Air Lines has set up an advisory board of directors and a field board of directors which will function with officers and directors as a part of management. The newly formed boards will meet monthly in one of the 66 cities served by Eastern.

Announcement of the streamlined management plan followed a four-day system-wide conference in Miami, at which E. V. Rickenbacker, president and general manager, and nearly 200 officers and directors, traffic and operations executives discussed plans for offering improved service to the post-war traveler.

"The tempo of modern business, especially in the air transport field, demands constant watching on movements and trends," Rickenbacker explained. "To keep pace with these fast-moving developments and to assure immediate action in coping with problems and carrying out plans, I know of no better way than to call upon the men most familiar with them—our own traffic and operations executives. The formation of these boards gives the executive in the field a voice in the operation of his company and provides the company with a faster-functioning 'streamlined management'."

C. W. France, of Miami, v. p. in charge of maintenance and engineering, and S. de J. Osborne, of New York City, v. p. in charge of traffic and sales, have been named chairmen of the Advisory Board of Directors. L. P. Arnold and M. M. Frost, both v. p.s with headquarters in New York City, have been appointed co-chairmen.

Members of the Advisory Board are:

(Miami) J. H. Brock, general purchasing agent; A. L. Chabot, asst. supt. of maintenance; E. G. Crow, supt. of inspection; Capt. F. E. Davis, chief engineering pilot; Dr. H. K. Edwards, medical director; Capt. P. L. Foster, chief pilot, Miami; W. C. Gilbert, personnel director; Capt. J. H. Halliburton, assistant operations mgr.; H. G. Lesley, supt. of maintenance; D. C. McRae, supt. of communications; J. C. Ray, supt. of engine overhauls; and G. H. Roering, asst. to operations mgr.

(Atlanta) J. J. George, chief meteorologist; Capt. L. H. Pabst, Western Division operations mgr.; Capt. Furman Stone, Chief Check Pilot, Atlanta.

(New York) T. F. Armstrong, sec'y. and treas.; C. W. Froesch, chief engineer; Capt. J. F. Gill, chief check pilot, LaGuardia Field; Beverly Griffith, dir. of special events; W. G. Harlan, legal counsel; A. L. Hart, dir. of research and planning; Maurice Lethbridge, asst. to v. p.-traffic and sales; R. W. McConnachie, dir. of training; J. W. Moore, asst. sec'y. and asst. treas.; W. L. Morissette, Jr., dir. of traffic procedures; Capt. E. H. Parker, Eastern Division operations mgr.; C. N. Scully, supt. of dispatching; E. E. Skinner, mgr. of air cargo department; J. T. Stickney, supt. of passenger service; P. A. Tolman, gen. traffic and sales mgr.; and Bradley Walker, account executive, Campbell-Ewald, Inc.

(New Orleans) Capt. G. E. Thomas, chief check pilot, New Orleans.

(Washington, D. C.) W. P. Scruggs, Jr., assistant to first vice president.

Representation on the field board of directors extends into every department and activity of the company's 23-state system. It comprises all regional, division, district, city, field, division reservations and new bureau regional managers; director of traffic procedures, system reservations manager, field supervisors, division trainers, assistants to the operations manager; superintendent of dispatching and all chief dispatchers; representatives of the accounting, purchasing, passenger service, schedule, traffic, agency, sales promotion, display and cargo, departments.

This board will consist of an operations group and a traffic group. G. M. Dyson, of New York City, eastern field supervisor, will be chairman of the operations group, and S. A. Kerr, of Atlanta, will be co-chairman; R. D. Hager, of Atlanta, central division traffic manager, will be chairman of the traffic group; T. P. Caldwell, southern division traffic manager of Miami, will be co-chairman. This Board will meet monthly.

Rickenbacker will act as chairman at the quarterly staff meetings of the two boards which will be held jointly. Directors of the company will semi-annually attend the quarterly meeting of the staff and, in turn, members of the advisory and field boards of directors will attend the regular monthly meeting of the regular board of directors of the company at that time.

The advisory board will confer August 27 in New York City. The field board will assemble the following morning in the same city.

C. C. Thompson Resigns American Aviation Post

Cyril C. Thompson has resigned as executive vice president and director of American Aviation Associates, Inc., to enter a new field of activity, announcement of which is to be made shortly.

Makes Survey Flight

A Northwest Airlines plane left La Guardia Field Aug. 9 on a survey flight from New York to Anchorage, Alaska. Northwest expected to open direct air service between the two cities, via Seattle, within six weeks, making one round trip daily and using four-engine equipment.

XB-36 Makes Test Hop

Initial flight of the Consolidated Vultee XB-36, world's largest land-based bomber, was made Aug. 8 at Ft. Worth, Tex. The six engine pusher-type aircraft was in the air with 1000 feet of a special runway to spare and remained aloft for 38 minutes. AAF said the initial tests were successful.

Williams Resigns From C&S

Harvey L. Williams, executive vice president of Chicago & Southern Air Lines, has resigned effective Aug. 30, President Carleton Putnam announced. The announcement gave no details, except to say that Williams' successor had not been named.

Tom Wolfe is Elected PAA Vice President

Thomas Wolfe has been elected vice president in charge of the Pacific-Alaska division of Pan American Airways. Wolfe recently resigned as vice president-traffic of Western Air Lines after 10 years with the company. He previously had served in the traffic department of United Air Lines for 10 years.

Juan T. Tripp, Pan American president, also announced the election of J. H. Smith, Jr., as vice president in charge of Pan American's Atlantic division. He succeeds John C. Leslie, a vice president, who has been transferred to the system's executive offices.

In his new post, Leslie will represent PAA in the Air Transport Association and in the International Air Transport Association. He will also serve as liaison with the State Department and CAB in connection with intergovernmental air transport agreements.

Smith formerly was a specialist in the State Department's aviation section, and served on active duty with the Navy.

Hearing On Helicopter Mail Test Sept. 9

Following the completion of three weeks of test flying, the Post Office Department announced it had demonstrated the helicopter could carry air mail through the summer fog of the Los Angeles area with a performance record at least as good as that of conventional aircraft.

Data obtained from the experiment will be submitted to Postmaster General Robert E. Hannegan and Second Assistant Postmaster General Gael Sullivan upon their return from Europe for action at the hearing scheduled by the Civil Aeronautics Board for September 9.

Postmasters in the area are enthusiastic for the service because they can foresee air mail revenues increasing as a result of the faster service. In some instances, air mail delivery to suburban points was speeded up as much as 12 hours.

The experiment, however, brought out the need for substantial modifications in routes and procedures. Vertical lines were flown in the experimental service, the helicopters tossing off in-coming mail on the outbound flight from the airport and picking up out-going mail on the return flight. In a regular service, horizontal loops would be more practical with the helicopters picking up and delivering mail at each postoffice.

United Earnings Up In Second Quarter of 1946

The addition of more service and larger aircraft provided a major factor in producing net earnings of \$1,353,601, equal to 72c per share of common stock, for United Air Lines in the second quarter of this year, an interim report to stockholders said.

For the first six months of 1946, United reported net earnings of \$841,060, equal to 42c a share, as compared with \$2,604,961, equal to \$1.57 a share, for the first half of 1945. In the second quarter, United's operating revenues total \$17,832,596, compared with \$9,818,226 a year ago.

Martin to Develop Cargo Version of 202 Transport

Long and Short Haul Models Are Planned

A CARGO model of the Martin 202 twin-engined transport which will carry a payload of 12,885 lbs. and which will have an operating cost claimed to be as low as six cents a ton-mile will be built by the Glenn L. Martin Co.

The cargo 202 will be available in two versions, one of which can be used on long hauls, the other on short hauls.

The long-haul version will have gross take-off weight of 41,000 lbs. and maximum operational range (70% power at 10,000 ft.) of 1,605 miles. It will make possible, the company states, coast-to-coast one-stop flights of 14 hours.

Of the gross, 12,885 lbs. will be payload, carried in an interior 50½ ft. long, containing 367 sq. ft. of floor space and a total volume of 2,250 cu. ft. All integral passenger entrance ramps in the passenger airplane will be removed and replaced by a large side cargo door 96 inches wide and 72 inches high. As in the passenger plane, the cargo 202 will have Martin-developed honeycomb flooring which will be redesigned to handle heavier weights. Cockpit, wings, fuselage and empennage will be identical with the passenger plane.

The interior of the plane will be arranged to suit the needs of the individual operator. It can be provided with refrigerated compartments or the whole interior can be chilled, the company says. Bins, shelves, tie-downs and other cargo handling equipment can be installed, or the interior finished so that quick rearrangements can be made as necessary.

The plane can operate from a 3,200-ft. altitude airport with water injection system installed, or from a 1,000-ft. airport without water injection at full gross take-off weight.

The short-haul version has gross take-off weight of 38,000 lbs. and maximum range of 1,010 miles. Payload is the same

as in the long-haul version, the difference in gross being that less fuel and other equipment is required, the company states.

The airplanes will cruise at 10,000 ft. with 70% normal power at 259 to 263 mph, with top speeds under the same conditions of 290-292 mph.

To clear a 50-ft. object, the 38,000-lb. version will need a 2,130-ft. runway; the 41,000-lb. version a 2,550-ft. runway, both models using water injection.

Both models will be powered by two Pratt & Whitney R-2800-2SC15G engines, with take-off power of 2,100 brake horsepower.

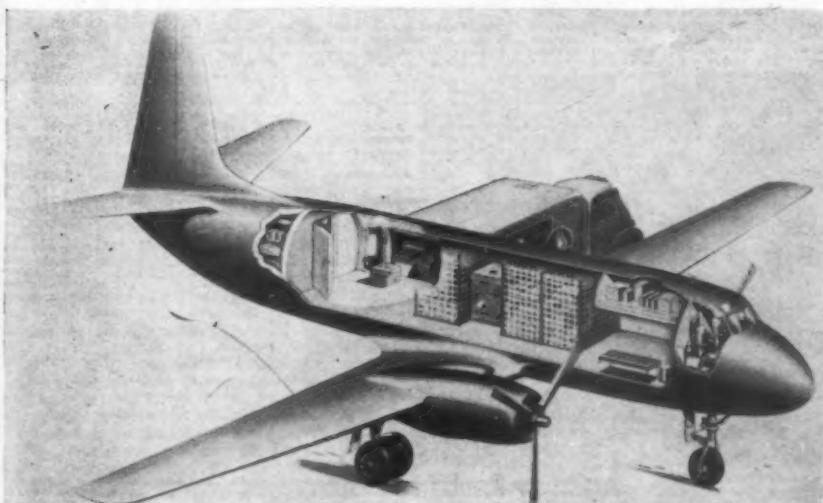
Other data on the two versions include: maximum landing gross weight, 36,500 lbs. for the short-haul, the same for the long-haul; operational ceiling (one engine inoperative, at take-off weight); 11,500 ft. at landing weight, 7,820 ft. and 3,000 ft.; maximum operational ceiling, two engines, take-off weight, 27,500 ft. and 26,500 ft.; cruise speed at 10,000 ft. and 60% normal rated power, without jet exhaust, take-off weight, 245 mph and 240 mph; stalling speed, at landing weight, 80 mph for both models; rate of climb, sea level, take-off weight, 1,425 and 1,250 ft. per minute; runway length for landing at sea level, 3,715 ft. for both; wing area, 860 sq. ft. for both; wing span, 92 ft. 9 in. for both.

Take-off power with the R-2800 is 2,100 bhp, increased to 2,400 bhp with water injection. Standby power is 1,800 bhp; maximum cruise power, 1,700 bhp. Fuel consumption at 10,000 ft., 60% power (2,070 rpm) is 156 gals. per hr.; at 70% power, 191 gph. Fuel capacity is 1,030 gals. for the short-haul version; 1,470 for the long-haul.

Martin engineers state that there may be some changes in these data and that final performance figures may be even better than anticipated.

Correction

AMERICAN AVIATION for August 1 stated that National Skyway Freight Corporation's loss in May of this year was \$76,979. This figure should have been \$27,966, with the \$76,979 representing the company's total revenues for that month.



Cutaway Drawing of Martin 202 Cargo Transport

Connies Show Profit

TWA's Lockheed Constellation operations on both transcontinental and overseas routes showed a profit of \$465,279 since their inauguration in January, the carrier reported. January and February, months in which much preparatory work still was being done, were reported to be the only months showing losses. From January until the end of June, the aircraft performed 68,682,456 passenger-miles of service transcontinentally and 26,665,859 internationally.

Plan National Drive To Educate Public In Use of 5c Air Mail

Following passage of the five-cent air mail bill in Congress Aug. 1, the Post Office Department and the Air Transport Association immediately set in motion the machinery for conducting a nation-wide educational campaign to promote the use of air mail on a volume basis which was expected to dwarf all previous records made when the pre-war six-cent rate was still in effect.

The five-cent rate was to go in effect Oct. 1 and on it the Post Office Department was pinning its hopes of increasing revenues to a point that they might wipe out a general postal deficit, estimated at around \$160,000,000 during 1946, caused largely by three wage increases granted postal employees by action of Congress.

Robert Ramspeck, executive vice president of ATA, states that ATA will spend thousands of dollars to make the country conscious of the new five cent air mail rate. This will include advertising in national magazines, advertising and releases for the newspapers of the country, displays in store windows, posters and placards at airline ticket offices, philatelic cachets, aircraft displays and special flights. In addition, airline sales representatives throughout the country will be asked to give air mail programs before civic clubs, school groups and business men's organizations.

This campaign will be tied in with a somewhat similar effort by the Post Office Department. Post Office trucks will carry posters urging the public to send their mail by air. Postal employees will be told to push air mail sales on the basis that it is to their interest to help wipe out a postal deficit that has accrued through wage increases which Congress has granted to them.

Aircraft Industry To Be Spot Checked By Mead

The Mead Committee plans to "spot check" the aluminum, aircraft, auto and shipbuilding industries to ascertain whether high wartime taxes and renegotiation of war contracts "took the profits out of war" as Congress intended, a committee source revealed today. The committee, this source declared, isn't looking for anything criminally wrong.

George Meader, committee counsel, stated the committee would look into wartime operations of the Hayes Manufacturing Co., of Grand Rapids, Mich.—a sub contractor of the Brewster Aeronautical Corp.

Hughes Tool Company Owns Largest Block Of Airline Stocks

Rep. Richard F. Harless (D., Ariz.), a member of the aviation subcommittee of the House Interstate and Foreign Commerce committee, made public on the floor of the House at the closing session Aug. 2, a tabulation showing the approximate market value in stockholdings of large common stockholders of the domestic airlines.

The list showed that 16 separately-held blocks of stock in the domestic industry had a market value at the end of last year of over \$75,000,000. The largest of these was the 44% interest of the Hughes Tool Co., in TWA with a market value of over \$30,000,000.

Braniff Holdings Large

The next largest was the \$9,500,000 interest in Braniff Airways held by T. E. Braniff, president. Next in line came William Coulter with 45% interest in Western Air Lines with a market value in excess of \$8,000,000. This was followed by the interest of R. J. Reynolds in Delta Air Lines and that of G. T. Baker in National Airlines having market values of \$5,300,000 and \$4,800,000 respectively.

According to the tabulation there were no stockholders holding over 4% of the outstanding common stock of American, Northwest, PCA and United.

This is the first public disclosure of large stock ownership in domestic airlines, it is believed. Harless said his subcommittee "has made various studies of air transportation in connection with this work (promotion and development of air transport) and as a part of those studies, I have had compiled from the records of the Securities and Exchange Commission, data concerning large stockholders in domestic air carriers." The tabulation appearing on Page A5037 of the Congressional Record for Aug. 2, is reproduced below.

What's In A Name?

Confusion, arising from non-scheduled operators adopting names similar to those of certified airlines, has prompted at least one carrier to appeal to the CAB. Counsel for TWA has announced that several of the mushroom organizations are using titles that may reflect in a bad way on that airline. He pointed out that one of the non-scheduled operators had offered to change its corporate name if TWA would give them two DC-3's. American Airlines has also been afflicted by a similar plague, with a number of barnstormers using names closely resembling the certificated carrier's trade mark, according to a letter sent to the CAB by George A. Spater, counsel for TWA.

T. O. Hardin Resigns As Manager For TACA

The resignation of T. O. Hardin as executive vice-president and director of TACA Airways, S.A., and TACA Airways Agency, Inc., was announced Aug. 6 by J. B. Holmes, president, who said the resignation had been accepted with great reluctance and regret.

Hardin has been actively engaged in the management of the TACA system since his release from the armed services. His physician recently ordered a prolonged period of rest. Hardin said that since an indeterminate time would be required to rehabilitate his health, his best solution was to resign.

At the same time Holmes announced the appointment of Richard S. Mitchell as vice-president in charge of operations for TACA Airways and TACA Airways Agency. He was formerly vice-president and general manager of TACA's Central American companies.

Prior to joining TACA in January of this year, Mitchell was with Consolidated Vultee Aircraft Co., in various capacities from 1941-45, with American Export Lines in 1940 and with United Air Lines from 1938 to 1939. While with Consolidated, Mitchell served as first division manager for Consairway, the military transport division of the company.

Approximate market value and stockholdings of large stockholders in airlines

Carrier	Total shares common stock outstanding Dec. 31, 1945	Market price (sale or bid)	Approximate number of common share-holders	Average number shares per shareholder	Market value of average holdings per shareholder	Stockholders holding over 10 percent or corporate air-line officers holding 4 percent, or over, as of Dec. 31, 1945	Number of shares held Dec. 31, 1945	Percent of total outstanding shares held Dec. 31, 1945	Market value of shares held Dec. 31, 1945
American	1,290,868	1,883.00	21,733	73	\$6,080	None	None	0	\$0,001,041
Braniff	1,000,000	1,33.13	4,4237	226	7,819	Thomas E. Braniff	289,799	29	80,601,400
Chicago & Southern	310,031	8.33.00	8,989	323	10,689	Carleton Putnam	52,800	17	1,742,400
Colonial	274,200	1,42.00	.....	.....	.....	Signature	34,914	13	1,497,112
Continental	271,000	8.28.00	7,819	524	13,654	Robert P. Sims	.....	.....	.....
Delta	400,000	8.59.00	9,1248	321	18,939	W. H. Elhart Estate	62,086	23	1,813,300
Eastern	897,160	1,117.80	20,232	210	24,675	L. H. Mueller	26,500	10	689,000
Mid-Continent	386,390	8.18.00	11,1380	322	5,076	R. J. Reynolds	90,800	23	8,363,100
National	500,000	1,34.25	12,500	323	11,405	C. E. Faull	38,937	9	2,120,283
Northeast	500,000	1,20.75	18,1500	323	8,910	C. E. Woolman	32,307	8	1,959,213
Northwest	839,070	8.53.25	24,2,444	221	11,768	E. V. Hickmott	22,000	6	2,070,000
Pennsylvania-Central	477,000	1,42.00	20,232	323	10,307	Ryan Family	100,991.3	28	1,970,951
Transcontinental & Western Air	886,488	1,28.00	18,20,500	68	3,212	R. Ted Baker	141,178	38	4,835,347
United	1,565,344	1,81.75	27,24,000	68	3,364	Atlas Corp.	100,000	20	2,075,000
Western	1,537,678	8.34.50	.....	.....	.....	Paul Collins	20,000	4	415,000
						E. C. Vidal	20,800	4	425,375
						Hughes Tool Co.	435,050	44	30,018,480
						None	.....	.....	.....
						William Coulter	240,310	45	8,387,245

1 Sale price, Dec. 31, 1945.

2 Dec. 31, 1945.

3 As of May 18, 1946, holdings by Aviation Corp. were reduced from 30 to 3.99 percent in accordance with CAB divestment order dated Oct. 30, 1945.

4 Feb. 20, 1944.

5 Bid price, Dec. 29, 1945.

6 Mar. 23, 1945.

7 Oct. 28, 1944.

8 Bid price, Dec. 31, 1945.

9 Sept. 30, 1945.

10 Mar. 8, 1945.

11 Apr. 12, 1945.

12 Aug. 1, 1945.

13 May 31, 1945.

14 Sept. 29, 1945.

15 Dec. 31, 1945.

16 Dec. 31, 1944.

17 Dec. 31, 1945.

18 On this date Western was in the process of issuing 137,934 stock with option to stockholders and employees. Coulter exercised his rights to buy on Dec. 31, 1945.

Previous to this date Western had 400,954 shares of stock outstanding and Coulter owned 192,168 shares, or 47 percent.

NL Certificates May Be Issued Aircraft Of Limited Service

Final action may be expected at an early date on a new aircraft category which would provide special "NL" certificates for war surplus planes intended for limited civilian service. The Civil Aeronautics Administrator, responsive to numerous requests, proposed the creation of such a classification by the Civil Aeronautics Board last summer, and after months of inter-agency conferences and delays, the Safety Bureau of the Board last week was preparing to make its final recommendations.

In general terms, the proposed NL classification is designed to offer a simplified method for certifying military surplus aircraft for limited usage without the extensive testing procedures required with new models. Service history of the particular model would be an important factor in the requirements for NL certification. Past performance of the planes, along with wartime maintenance records, would be considered, with proper allowance made for unusual wartime operating conditions.

CAA and Safety Bureau officials indicated that NL certificated planes definitely would not be allowed to carry passengers commercially. Differences on cargo requirements and other details were still to be worked out.

Adoption of the new designation is expected to serve as a stimulus for disposal of war surplus planes through War Assets Administration by easing of the more stringent requirements for an NC to permit limited civil use of the craft.

The NL (limited) classification would be distinct from the present NR (restricted) designation which presumes that an aircraft has met provisions of either Part 03 or 04 of Civil Air Regulations. An NR plane fully meets type certificate requirements, then is modified for a specific purpose, such as crop dusting, sky writing, and other industrial uses.

Air Conference Reaches Impasse at Mexico City

May Resume Talks After New President Takes Office

UNABLE to reach agreement either on principles covering air services between the two countries or on routes, the U. S. and Mexico have suspended indefinitely the civil air talks which had been in progress for a month in Mexico City. The conference broke up on July 25.

The U. S. was confronted with a Mexican demand for a 50-50 division of schedules and capacity between the U. S. and Mexican airlines—an idea similar to that which the British presented at the 1944 Chicago international civil aviation conference and which the U. S. opposed.

And it seemed to be well established that the British contributed to the U. S.-Mexico impasse. A British mission flying from Argentina to Montreal stopped at Mexico City some months ago and "sold" the quota conception of air transportation to some of the Mexicans. Evidence of the British activity is abundant in Argentina which now wants limitation on frequencies regardless of what the traffic demand might be, a limitation which is proving a handicap to Pan American Airways. The U. S. delegation to Mexico City was made well aware of the British visit there earlier when the Mexican proposal reflected British thinking with regard to limiting air transportation.

"The United States believes that free enterprise and regulated competition are the only sound basis for the full development of air transportation," said CAB Vice Chairman, Oswald Ryan, who served as head of the U. S. delegation to Mexico City.

The route on which agreement could not be reached was the Braniff Airways' line from San Antonio to Mexico City, virtually paralleling American Airlines' route. The Mexican delegation flatly refused to approve the Braniff route.

Temporarily, at least, the suspension delays the plans of Braniff, Eastern Air Lines and Western Air Lines for routes into Mexico, awarded them in CAB's recent Latin American decision. There is hope that when the new Mexican president, Miguel Aleman, takes office late this year, negotiations can be resumed.

The U. S. was willing to accept nine Mexican routes into the U. S.: (1) Mexico City or Mexicali to Los Angeles, (2) Torreon, Nogales and Phoenix to Los Angeles, (3) Mexico City and Monterrey to San Antonio and Ft. Worth-Dallas, (4) Torreon to Houston, (5) Monterrey to Houston, (6) Mexico City, San Antonio and Detroit to Canada, (7) Tampico to Brownsville and Houston, (8) Mexico City and Tampico to New Orleans, and New York, and (9) Mexico City or Veracruz to Miami and beyond.

The U. S. wanted (1) San Antonio and Laredo to Monterrey and Mexico City, (2) Ft. Worth-Dallas and San Antonio to Monterrey and Mexico City, (3) El Paso to Monterrey and Mexico City, (4) Los Angeles and San Diego to La Paz and Mexico City, (5) Houston and New Orleans to Merida and beyond, (6) Miami via Havana to Merida and beyond, (7) Houston, Corpus Christi and Brownsville to Tampico, Mexico City, Tapachula and beyond, and (8) New Orleans-Mexico City.

C-74 Set Load Lift Record Before Crash

A gross load of 172,000 lbs., the greatest weight ever to leave the earth under power, was lifted by the new Douglas C-74 Globemaster in tests at Muroc Army Air Field, previous to the flight which resulted in the crash of the four-engine transport. In accomplishing the feat, the C-74 also became the first modern transport to lift a disposable load, greater than its own empty weight of 85,712 lbs.

Russell K. Thaw, test pilot, reported that a run of only 4000 ft. was required before the heavily loaded plane left the runway, despite a slight tailwind and a field elevation of 2200 feet, coupled with high temperature. George Jansen, co-pilot and Charles Nielson, flight engineer made up the flight crew and these were accompanied by H. H. Lane, observer, on the final flight.

The crew was compelled to abandon the plane at approximately 10,000 feet, near Los Angeles, August 5, during an accelerated pullout, following a dive test under overload conditions. The plane carried a gross weight of 70 tons, considerably in excess of the design strength for such maneuvers, it was announced.

Export Merchandise Values Increased

The value of merchandise exported by air from the U. S. increased 14% from \$7,695,980 in March to \$8,753,423 in April, according to Department of Commerce reports. During this period, the shipping weight of air exports increased 20% from 1,306,600 lbs. to 1,563,000 lbs. The increase, in large part was attributed to added exports to Cuba and South American countries.



New Delta Base—

This architect's drawing shows the \$1,000,000 expansion for which Delta Air Lines has just contracted at the Atlanta Municipal Airport. Left is Delta's present hangar and general offices, while to the right is the proposed new hangar with offices in front. A new executive wing is shown front right. The additions will more than double Delta's present general offices and chief maintenance shops. The Austin Company designed and will construct the expansion.

Top Personnel Shifted By CAA Administrator

The Civil Aeronautics Administration has announced the reassignment of several top members of its personnel, with changes effective September 1. In the new setup, A. S. Koch, assistant administrator for field operations will become assistant administrator for safety regulations, a post he held before the war. Koch replaces Fred M. Lanter who will become regional administrator at Atlanta.

William B. Robertson, now at Atlanta, will assume Koch's former duties in connection with foreign and international operations while Howard Rough will become assistant administrator for domestic field operations. Rough, who has been an assistant to the administrator since his return from military service will, with Robertson, have the rank of Assistant Administrator.

Famous Pilots To Vie For Air Race Purse

Many big names stand out in the list of National Air Race entries, filed previous to the August 5 deadline according to the chairman of the events committee. More than 124 requests for application blanks were received early last month and the first returns were from such old time race favorites as Paul Mantz, Earl Orman, Tony Levier, Rex Mays and Harold Johnson. Charles Tucker, formerly with the Flying Tigers' and 'Woody' Edmondson, from the minor air show leagues, are among the newcomers to the big time in 1946.

Missing this year will be such former contenders as Roscoe Turner, Harold Neuman and Roger Don Rae, all of whom are still engaged in aviation pursuits. For the first time in many years, the annual classic will have competition involving war surplus planes. Paul Mantz is one of the veteran flyers who participated in the annual events, in the era when Canucks, Jennies and Standards of World War One were still predominant on the starting line. For the 1946 show, Mantz has entered two P-51 Mustangs, one to be flown by Tommy Mayson. The National Air Races for 1946 will be held at Cleveland, August 30 through September 2.

Government to Pursue Air Policy of Bilateralism

Five Freedoms Agreement Was A One Man Proposal

WITHDRAWAL last month of the United States from the Air Transport (Five Freedoms) agreement, evolved at the 1944 International Civil Aviation Conference in Chicago, does not presage a change in U. S. international aviation policy nor does it mean that this country has abandoned hope of getting eventually a multilateral agreement covering competitive problems.

What was abandoned was the instrument—The Five Freedoms document by which former Assistant Secretary of State Adolf A. Berle Jr. hoped that the nations of the world would grant to each other a wide degree of freedom in international aviation. The U. S. retains the same principles, but will use different methods. Although still hoping for and believing in a multilateral agreement, the government will for the time being follow a policy of bilateralism.

The Five Freedoms document, drafted somewhat hurriedly in the closing days of the five-week Chicago conference, grants freedom (1) to fly over a country without landing, (2) to land for technical purposes, (3) to carry traffic from the home country to any other country, (4) to carry traffic from any other country back to the home country, and (5) to pick up traffic in a foreign country and carry it to another foreign country.

In the 20 months since the Chicago conference, only 15 nations have signed the agreement: Afghanistan, China, Dominican Republic, El Salvador, Ethiopia, Greece, Honduras, Liberia, Netherlands, Nicaragua, Paraguay, Sweden, Turkey, U. S. and Venezuela.

However the pattern of international routes now operating, or certificated to be operated will not be affected by the U. S. withdrawal, because this country has signed some 15 bilateral agreements which

incorporate the Five Freedoms principles: Belgium, Canada (not a Five Freedoms document), Czechoslovakia, Denmark, Egypt, France, Greece, Iceland, Ireland, Norway, Portugal, Spain, Sweden, Switzerland, Turkey and the United Kingdom. Of these, Greece, Sweden and Turkey had signed the Five Freedoms agreement. An important nation which had signed this agreement but with which the U. S. does not have a bilateral is the Netherlands, and the U. S. can be expected to attempt to sign such an agreement as soon as possible. (It is necessary to give one year's notice in withdrawing from the Air Transport Agreement. Thus, the U. S. will not withdraw until July 25, 1947).

No doubt agreements will also be sought with other signers of the Five Freedoms with whom the U. S. does not have bilaterals.

Actually, the Five Freedoms was essentially a one-man proposal—that of Adolf Berle. Opinion inside the U. S. delegation at Chicago was not unanimous. The Civil Aeronautics Board, for example, while not making public objection, never formally approved the idea, but went along as a "silent partner." In addition, the agreement created considerable misunderstanding and confusion in Congress, and its withdrawal at a time when the Senate was considering the International Civil Aviation Convention no doubt had much to do with ratification of that document.

In addition to the U. S. being unable to "sell" the Five Freedoms to other nations, there is the objection that it is extremely hard to arrive at a route pattern multilaterally under that agreement. There is the additional objection by some international legal experts that the document contains serious ambiguities which might lead to international misunderstanding. This was the reason that the U. S. signed bilaterals with some of the nations that had already signed the Five Freedoms.

CAA Apportions First Airport Funds; Total Exceeds 30 Millions

The Civil Aeronautics Administration announced apportionments to the states of \$30,822,750 of the appropriation by Congress for airport construction and development under the Federal airport act for the fiscal year 1947.

The state apportionments, which must be matched by sponsors of projects, were determined by the ratio which the population and area of the state bear to the total population and area of the United States. This is the formula provided in the Act.

Out of the \$45,000,000 appropriated, \$1,740,000 is for projects in Alaska, Hawaii and Puerto Rico, leaving a total of \$43,260,000 for projects in the United States. Of that sum five percent is for administration and 25 percent of the remainder is set aside as a discretionary fund to be available for construction as determined by the Administrator of Civil Aeronautics. Total money available for allocation among the states, therefore, is \$30,822,750.

Regulations governing individual project requests are now being prepared, and applications from project sponsors will be considered after Oct. 1.

The table below shows the apportionments for projects in the respective states under the area-population formula:

State	Apportionment	Rank
U. S. Total	\$30,822,750	
Alabama	591,213	20
Arizona	625,320	16
Arkansas	492,437	35
California	1,598,582	3
Colorado	650,276	15
Connecticut	227,839	44
Delaware	43,172	49
Dist. of Columbia	77,955	48
Florida	522,151	32
Georgia	658,863	14
Idaho	477,266	37
Illinois	1,212,617	5
Indiana	582,951	21
Iowa	577,179	22
Kansas	620,260	18
Kentucky	534,101	28
Louisiana	523,220	31
Maine	269,947	43
Maryland	274,397	42
Massachusetts	551,120	26
Michigan	1,096,900	6
Minnesota	756,211	10
Mississippi	495,837	34
Missouri	789,721	9
Montana	777,733	8
Nebraska	538,393	27
Nevada	543,019	23
New Hampshire	103,834	45
New Jersey	527,639	29
New Mexico	667,735	13
New York	1,846,180	2
North Carolina	680,372	12
North Dakota	426,809	39
Ohio	1,030,860	7
Oklahoma	621,432	17
Oregon	610,420	19
Pennsylvania	1,388,042	4
Rhode Island	87,405	47
South Carolina	377,601	40
South Dakota	458,490	38
Tennessee	551,531	25
Texas	2,081,311	1
Utah	467,007	36
Vermont	87,867	46
Virginia	524,064	30
Washington	554,509	24
West Virginia	342,759	41
Wisconsin	696,774	11
Wyoming	516,629	33



New FAA Officers—A new slate of officers, composed entirely of officials of certificated carriers, was elected by the Feeder Airlines Association at its second annual meeting in Washington, Aug. 5. New president, succeeding Bowman R. Otto, is James G. Ray, of Southwest Airways Co., shown center above. Gilbert R. Cook, of West Coast Airlines, Inc., on the left, was elected secretary, while Robert M. Love, of All American Aviation, Inc., right, was elected vice president. Albert Zimmerly, of Empire Air Lines, Inc., is new treasurer; Joseph J. Mitchener, Jr., continues as executive director. At an informal opening session, James M. Landis, chairman of the Civil Aeronautics Board, told the meeting that feeder airlines would not be able to survive without adequate mail pay and expressed belief that such expenditures were well worthwhile in bringing air service to many small communities.

Takes Over New Duties

Stanley de J. Osborne, vice president of Eastern Air Lines, has taken over traffic and sales and public and industrial relations for the company.

The Birdmen's Perch

By Major Al Williams, ALIAS, "TATTERED WING TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.



Know when the first air mail was carried?

Well on Jan. 7, 1785, a letter was carried by balloon across the English Channel to a member of the household of Benjamin Franklin!

Now that's what we call a "Little Known Fact."

And for sending that "Fact" in, Ralph M. Eastman of Boston has been sent a beautiful, gilt-edge, engraved-type commission which proclaims to one and all that he's a genuine Perch Pilot (bottom rung)!

If Perch Pilot Eastman sends in four more "Little Known Facts"—accompanied with proof, mind you!—and we use them in the Perch, he will then be promoted to Senior Perch Pilot!

Now here's one from Russ Brinkley, Kansas City, Mo., who becomes a Perch Pilot (br) because:

"An airplane engine carburetor manufactures ice faster than an electric

refrigerator!"

Interested?

Well get going, then! Send in a Little Known Fact to the address above and undying fame may be yours!

Not to mention the commission!

THIS TAKES THE CAKE . . .

We were chinning with a stewardess in Washington, a few weeks ago.

She got to telling us about a super cake she makes. And guess what! She practically uses the Alchlor Process—Gulfpride Oil's extra refining step—on the eggs that go into this cake!

First she gets rid of the nonedible shells—just as we get rid of the non-lubricating parts of the crude when we refine the oils that go into Gulfpride.

But she doesn't stop there—and neither do we!

This stewardess then "refines" out a respectable percentage of those eggs—the whites—leaving only the yolks, which she uses on her super cake.

What we do is to refine out a respectable percentage of that already refined oil with our extra step, the Alchlor Process. That leaves only the super-lubricating heart of the original petroleum.

Which we put in cans labeled "Gulf-pride!"

WHICH WE PUT IN CANS
LABELED "GULFPRIDE"!



SPECIAL NOTE

We just saw a thing in an AAF journal which we think bears a little repeating. It went:

IMPORTANT

USE YOUR

CHECK LIST

IMPORTANT

USE YOUR

CHECK LIST

IMPORTANT

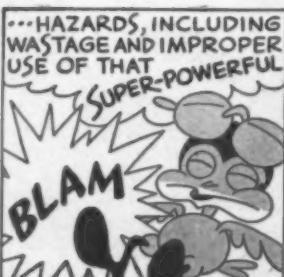
USE YOUR

CHECK LIST

Seems logical, no?

Gulf Oil Corporation and Gulf Refining Company...makers of

GULF AVIATION PRODUCTS



Why this team sets the



1877: Grand-daddy of all microphones was Alexander Graham Bell's box telephone, into which Thomas A. Watson shouted and sang in the first intercity demonstrations of the infant art of telephony.



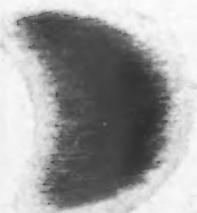
1920: Telephone scientists developed the first successful commercial mike—the double carbon button air-damped type. Used first in public address systems, it later became the early symbol of broadcasting.



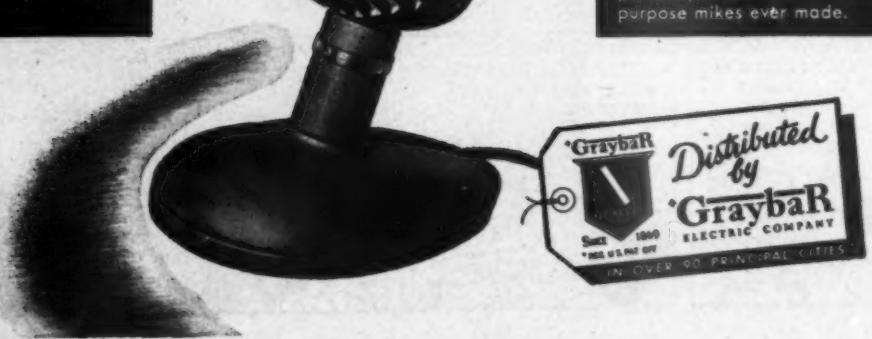
1921: The condenser microphone, designed by Bell Laboratories for sound measurement in 1916, entered the public address and broadcasting fields. It provided a wide frequency range and reduced distortion.



1937: The Western Electric "Machine Gun" mike does for sound pick up what the telephoto lens does for photography. Sharply directional, this microphone makes sound "close-ups" at unusually long range.



1938: Cardioid directional microphone, with ribbon and dynamic elements, was the first mike ever to combine 3 pick-up patterns in one instrument. The later 639B, with 6 patterns, is also one of the finest all-purpose mikes ever made.



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Since 1869
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IN OVER 90 PRINCIPAL CITIES

pace in Microphone Development



1931: Bell Telephone Laboratories developed the Western Electric moving coil or dynamit microphone. The first of its kind, it was rugged, noiseless, compact, and needed no polarizing energy. Many are still in use.



1935: The first non-directional mike — the famous Western Electric 8-Ball, designed by Bell Laboratories. Small, spherical, it provided top quality single mike pick-up of speech or music from every direction.



1936: Directional with slide on baffle, non directional without it, the Western Electric Salt Shaker gave highest quality pick up at new low cost. Widely used in studios and remotes as well as in high quality sound distribution.



1946: No larger in diameter than a quarter, the 640 Double A condenser mike [shown with associated amplifier] is ideal for single mike high fidelity pick-ups. It was originally designed as a laboratory test instrument.

What is a microphone? Fundamentally it's a device which converts sound into electrical energy—just what Bell's original telephone did for the first time away back in the seventies.

Today's Western Electric mikes—the Salt Shaker, Cardioid and 640 Double A—are a far cry from the first crude, close-talking telephone transmitter. But they're its direct descendants.

Year after year, Bell Telephone scientists—through continuing research—have developed finer and finer telephones and microphones.

Year after year, Western Electric has manufactured these instruments, building quality into each one.

Together these teammates have been responsible for almost every important advance in microphone development.

Whether you want a single mike, a complete broadcasting station, or radio telephone equipment for use on land, at sea or in the air, here's the point to remember:

If Bell Telephone Laboratories designed it and Western Electric made it, you can be sure there's nothing finer.

BELL TELEPHONE LABORATORIES

World's largest organization devoted exclusively to research and development in all phases of electrical communications.



Western Electric

Manufacturing unit of the Bell System and the nation's largest producer of communications equipment.

Thousands On Islands Seek Air Passage To Mainland

Hawaiian Potential to Exceed Half of Population

By FRED HUNTER

LONG queues of passengers lined up throughout the day in the ticket office of Hawaiian Airlines in Honolulu illustrate how the air age has burst like a sky rocket over post-war Hawaii. The airplane definitely and unequivocally has established itself as the vehicle of transportation between the islands and everybody flies.

If you want to book space for a flight between any two points on Hawaiian Airlines' 364-mile system, do it 30 days or more in advance because Hawaiian is plagued by a space problem even more pronounced than on the major carriers in the states. By the end of the year, Hawaiian's volume of traffic in number of passengers annually will equal more than half the entire population of the islands. The population of the islands is only a little over 500,000 and Hawaiian will reach the mark of 300,000 passengers annually, a ratio unequalled any place else in the world.

At the same time, the backlog of passengers seeking air transportation to the U. S. mainland has grown to staggering proportions. Pan American's backlog has reached the point where it had to suspend future bookings entirely. To further complicate the future situation, Pan American has 3,000 people in Manila waiting for a chance for a seat on a plane to the states.

Hawaii is anxiously awaiting the start of service between Honolulu and San Francisco by United Air Lines and a steady stream of visitors troop into the temporary traffic office United has opened in Honolulu, all asking the same question: "Where can I get a seat?"

Since United is uncertain as to when it will be able to start its trans-Pacific service it is taking no advance reservations, but the day it opens its space charts—probably some time this fall—it is a foregone conclusion that it will fill up its flights for weeks to come.

Although there naturally was some agitation for the Matson Navigation Company, which is strongly entrenched in Hawaii, the CAB's decision awarding United the route between San Francisco and Honolulu received general island approval. United quite obviously enjoys good public relations in Hawaii as a result of its operations there for the Air

Transport Command plus its proposal to lower the fare to \$125. The first thing Honolulu asked W. A. Patterson, United's president, after news of the CAB decision reached the islands, was whether the \$125 figure still stood. His reply was that it did. The present fare is \$195.

With lower air fares and ample service, Hawaii expects the tourist business to project itself into the major industry of the island, eventually even exceeding its great sugar enterprise in dollar volume—providing it can build up its facilities. But new accommodations will have to be provided to meet the expected expansion or it simply will not take place.

This obstacle starts in Honolulu and extends to all the other island points. With one or two exceptions, Honolulu's tourist hotels were taken over by the military during the war. The Moana has been re-opened as a commercial hotel, but the famous Royal Hawaiian will not be ready until about the first of next year. Even with all of the returned hotels operating, however, hotel facilities will fall far short of the expected demand.

The complexion of Hawaiian Airlines traffic between the islands is somewhat different from air travel in the states. It is estimated that less than 50 per cent is business travel. The rest is pleasure travel, much of it visits back and forth by relatives who are scattered about on the various islands. The company now is flying six 24-passenger Douglas DC-3's in its inter-island service and has two more on the way. Shortly, Stanley C. Kennedy, president of Hawaiian, will head for the states to look at Consolidated Vultee's 240 and Martin's 202 as possible replacements with greater carrying capacity.

A daylight operation, Hawaiian recently was permitted to extend its flight period from 10 hours a day to 12 hours a day in order to increase its schedules. In the 12-hour period, it is obtaining an average of eight and a half hours of plane utilization.

Hawaiian's ground handling is an eye-opener to passengers accustomed to terminal delays in the states. Hawaiian operates flights in which the turn-around is as low as 15 minutes. In that time it will unload a plane, clean and service it, re-fuel, load up and have it on its way. One reason is that Stanley Kennedy himself frequently pops out to the airport to put the watch on his boys. Another is that

there are no airport porters or red caps in Hawaii. When a Hawaiian Airline plane lands, it has the baggage unloaded, the passengers aboard the coaches and on their way in five to seven minutes. It's all done with the airline's own crews.

Four big military airports soon are to be turned over to the territory of Hawaii for commercial operations. Topping the list is John Rodgers Airport, the big combination land-and-sea base in Honolulu. Into the rather skimpy field which was John Rodgers prior to the war, the Navy pumped millions of dollars, not only to extend and reinforce the land runways, but to dredge out a 10,000-foot water runway for seaplane operations. The improved airport will be restored to the territory on September 1.

Anticipating that its commercial airport will become one of the busiest in the world, Honolulu is making plans for new buildings and facilities for the commercial operators. The Naval Air Transport Service also will be a tenant, using the land airport for its Douglas R5D's and four docks along the water for its Mars flying boats. NATS also will retain a million-dollar hangar at the field to service its planes.

Braniff Accuses PAA After Failure Of Mexico Air Conference

Thomas E. Braniff, president of Braniff Airways, has given out a statement accusing Pan American Airways and its Mexican subsidiary, Compania Mexicana de Aviacion, with responsibility for the failure of the recent international air conference in Mexico City.

"The conference between Mexico and the United States failed because the Pan American World Airways accomplished, with the assistance of its Mexican satellite, CMA, what it had failed to accomplish in the United States, namely the perpetuation of a monopoly," Braniff's statement read.

The route conference, which was expected to set a precedent for American dealings with other Latin American nations, broke down over Mexican insistence on a 50-50 division of schedules and passenger capacity between American and Mexican air carriers.

George Rihl, of Pan American, replied to Braniff's statement as follows:

"Mr. Braniff and I are personal friends of long standing and it was a surprise to me to read his statements. Mr. Braniff should have understood that the Government of Mexico could never tolerate to be controlled by a foreign company, even though that foreign company had a satellite in Mexico. It would even seem that Mr. Braniff does not comprehend the meaning of the word 'satellite,' as 55% of the stock of the CMA, Mexicana de Aviacion, is the property of a group of Mexican citizens and the president of the Administration Council is one of the most noteworthy men of industry in Mexico. In my concept, Mr. Braniff has yet to learn much of Latin America, as otherwise he would not deliberately have accused the government of Mexico of being controlled by commercial interests."



Mail Experiment Concluded—The Post Office Department has concluded its air mail experiment in Los Angeles, declaring that it was satisfied with its findings. The Post Office Department will recommend to the CAB at a hearing Sept. 7 that three helicopter routes be established in Los Angeles. Photo shows one of the Army helicopters used in the test receiving and loading mail from United Air Lines at Lockheed Air Terminal, near Los Angeles.



The new Navion... test-flown on Chevron Aviation Gasoline

To make sure of top power output during test-flights each new Navion, North American's new personal plane, flies first on Chevron Aviation Gasoline. Engineered by years of research, the high anti-knock qualities of Chevron Aviation Gasoline permit fast acceleration for take-offs in limited space.



No wonder the leading plane builders of the West put Chevron Aviation Gasoline in the tanks of their planes to power their first take-off.

Take a tip from the test-pilots. Lift your own wings with the gasoline that's made for aircraft

engines . . . the gasoline that's clean-burning . . . makes engines last longer when you're rolling up those cross-country miles.



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ROSE-COLORED GLASSES?

A recent editorial in AMERICAN AVIATION says:

"Steamship companies have been looking at

WE suggest that the writer of the editorial, and the interests he favors, see an optometrist at once. It is our opinion that they are in need of just plain ordinary glasses . . . good strong ones . . . because the editorial fails completely to visualize what is at stake in the matter. What is at stake is American overseas trade and travel. Overseas trade and travel are neither new nor mysterious. It does not require rose-colored glasses to see them. It is the age-old struggle for competitive markets by the nations of the world in terms of coal and wheat, refrigerators and carburetors, ash trays and tinkertoys.

It concerns the men riding the planes who arrange and control the movement of these products. It has to do with the people who vacation in foreign lands. It has to do with the articles produced by this



- The editorial not only misses the main point and the crux of the problem, but in our opinion contains many misleading and inaccurate statements, to wit . . .

The Editorial says :

- "The well-heeled steamship lobby" . . . etc.

We Quote: In the "Great Silver Fleet News," published by Eastern Airlines, the head of that company stated: ". . . policy laid down years ago has been kept uppermost in mind, to increase consistently the opportunities of the Eastern Airline Family by the expenditure of \$100,000 a year for protecting our original routes from being paralleled by competition."

And again:

Attorneys for Eastern Airlines on June 18, 1946, filed and later withdrew a petition (Docket 730) which charged, ". . . that PCA's expenditure for estimates and development projects have been substantial and have consisted largely of expenditures to secure local support and influence by parties, favors, junkets, dinners, and other similar means."

". . . that PCA has maintained elaborate suites at prominent hotels in Washington and New York and has entertained in person in said suites in order to secure their support and influence . . ."

Attorneys for PCA on June 26, 1946, stated that, ". . . PCA does maintain an apartment in Washington and an apartment in New York and has done so for many years for . . . needed accommodations for PCA personnel."

". . . that PCA did hold open house at the Statler Hotel on Sunday, June 9, 1946. It is well-known that almost if not all airlines have given and continue to give receptions in certain key cities . . ."

The Sea-Air Committee challenges the airlines, individually, and the Air Transport Association, to make public a detailed statement of their expenditures in connection with their Washington activities and lobbies.

The Editorial Says: "It is still somewhat of a mystery as to just why the steamship firms are so anxious to operate airplanes."

We Say: There is no mystery. Airline operators and government officials alike promise proudly that aviation will take away 50% of the first-class passenger steamship revenue. To the passenger steamship companies, this cut would be an almost paralyzing wallop. They want a chance to compete, and to hold their own.

The Editorial Says: "Air Transportation is in a world of its own, with its own concept of operation and its own concept of transport."

We Say: For air transport to seek to arrogate to itself mystic or supernatural powers of "know how" is to dismiss all of man's accumulated knowledge of transportation since the discovery or invention of the wheel or the dugout canoe. We submit that transportation is trade and travel, afoot, on horseback, on rails, ships, or planes.

Is air transportation a world of its own?

Then why did American Airlines, largest domestic air transport system, launch its overseas operation by purchasing an airline established and developed by American Export Lines, a steamship company? Why did they hire the personnel of this line? Why maintain a steamship man—Mr. Slater—as Chairman of the Board?

Transportation a world of its own?

Then why did Trans-World Airways, second largest domestic operator, retain an Admiral of the United States Navy (a sea-going operator) in an important post? And why is a former head of Alaska Steamship Line numbered among its high executive personnel?

If air transportation is a "world of its own," how does it happen that Pan American has linked itself with W. R. Grace? And how about the Air Transport Association, trade representative of all 23 domestic and overseas airlines, who engaged Rear Admiral Land, a shipping man and ex-chairman of the Maritime Commission as its president and operating head.

The Editorial Says: "Another over-worked argument is that foreign steamship companies hold interests in their respective air transport systems, hence the U. S. steamship companies, in order to 'hold their own' against their foreign opposites, must also enter the air business. It is true that foreign steamship lines hold airline interests ranging from a small percentage of stock to rather full control. The motivating force behind much of this foreign steamship interest in airlines is usually one of nationalistic economy."

(C) The Sea-Air Committee of the National Federation of American Shipping, Answers an Attack on the Eligibility of American Steamship Companies to Operate Airplanes Along Their Routes.

Looking at the airplane through rose-colored glasses"

nation which create the salary that pays the grocery bill of the ordinary American citizen.

We admit it is a miraculous thing when a piece of transportation equipment designed in a special way reaches a certain speed it suddenly becomes airborne and flies—but to get so wrapped up in this miracle as to forget that the rapid transportation of limited weights is merely one of the many aspects of a closely knit and highly inter-related pattern of international trade and travel, seriously raises the question of who is wearing the rose-colored glasses.

We fear that the writer of the editorial is wearing a pair of rose-colored bifocals—with the lower lens blacked out!



We Say: It may be over-worked, but it is still valid. And, furthermore, our own Nationalistic Economy has so far been denied these sea-air advantages we so freely grant to foreign nations and upon which they apparently place much value.

The Editorial Says: "If the U. S. companies wish to participate in air transportation, there is nothing to stop them from purchasing stock in the open market."

We Say: Stock ownership is investment. The steamship operators want to operate a full transportation business. Passive participation is not their way of doing things.

The Editorial Says: "Steamship companies are basically wedded to the sea."

We Say: Steamship companies are basically wedded to overseas travel and trade. They have business-promoting facilities, plants and installations which are not connected with ocean or ships.

The Editorial Says: "The will to do isn't there."

We Say: Extensive air services operated by steamship companies, now and in the past, established that the 'will to do' is there beyond question. The campaign they are now pressing is further proof that it is still there.

The Editorial Says: "We can't blame the steamship gang for becoming unduly enthused over this new-found toy called the airplane."

We Say: The steamship companies are not concerned with the 'new found toy' aspects of aviation since they can hark back to the days of the American clippers when Fulton's first steamship was so labelled. The 'new-found toy' psychology bespeaks a sophomoric attitude, and the steamship lines, and their foreign competitors, are all post-graduates of the hard school of overseas trade. To them, the airplane is an important new tool in their business of overseas trade.

The Editorial Says: "Steamship men inevitably must have a port-to-port approach to transportation."

We Say: Shipping companies don't operate on a port-to-port approach. They think and function in terms of great interior trade areas. They have large inland organizations to handle and develop this business. However, Pan American,

overseas airline pioneer and biggest and most experienced overseas operator, has always, and still does, operate on a port-to-port basis.

The Editorial Says: "Just ponder a single new route hearing involving both legitimate airline companies and steamship companies . . . what possible choice could there be in reaching a decision?"

We Suggest: That the editors ponder two recent decisions one involving the Waterman Steamship Corporation and the other the Matson Navigation Company. Both steamship companies actually own the necessary overseas aircraft, have a fully trained and skilled operating staff, air and ground, and have flown the routes in question. Both are ready, willing and able to begin immediately the service which the public desperately needs. However, the routes were awarded to airlines who will be unable to commence operations for a long time.

The Editorial Says: "The steamship companies have vast financial resources."

We Say: The steamship companies have operating capital but—compared to many airlines—they are juniors in the financial world. What passenger steamship line would attempt to float an 80 million dollar financing program (as an airline recently did)?

The Editorial Says: "The main point at issue is not the prohibition against the use of airplanes by steamship companies, per se, but the major policy and principle that the major air trunk routes of the world will be operated by experienced air transport companies."

We Say: The main point at issue is overseas trade and a policy on transportation which will best serve our economic and national interests. Selection of air transport companies for the major trunk routes smacks of monopoly and will not give us the completely interwoven transportation establishment we need to protect our national ideals and interests.

In Conclusion: We believe that steamship lines should be equally as eligible to operate airlines as any other transport companies.

We believe that petitions to the CAB for authority to add such a service should get a "YES" answer.

The foregoing statements present the problem, as we see it . . . and our glasses are neither half-blacked-out nor rose-colored.

National Affairs and Congress

Agree To Lease

Army officials were said to have agreed to a prospective eight-months lease period covering the transfer of C-54G transport aircraft to the airlines to replace the grounded Constellations. The reputed lease rate discussed ranges from around \$4900 to \$5700 a month. Pan American Airways was said to be interested in obtaining 20 of the aircraft, American Airlines six. TWA's figure had not been decided upon.

Air Exports Increase

The value of merchandise exported by air from the U. S. increased 14% from \$7,695,980 in March to \$8,753,423 in April, Department of Commerce reported. During this period the shipping weight of air exports increased 20% from 1,306,600 lbs. to 1,563,000. Increased exports to Cuba, Brazil, Colombia, Venezuela, Argentina and other South and Central American countries accounted in a large measure for the boost.

Favor Single Body

Membership of the U. S. Chamber of Commerce in a national referendum favored ultimate regulation of interstate and international transportation for hire by a single regulatory body, with a temporary exception for air and international sea transport.

Would End Gas Tax

Louisiana state legislature has passed a resolution calling for a constitutional amendment which would exempt from all ad valorem taxes for 10 years all aircraft based or operating within the state, together with all hangars, machine shops and equipment used to service such aircraft. The amendment will be submitted to the voters at an election on Nov. 5.

First Power Test

The XS-1, AAF supersonic research, rocket-propelled aircraft, has been scheduled to make its first powered flight at Muroc Field, Calif., soon. The aircraft was built under joint supervision of the Air Material Command, Bell Aircraft Co., and National Advisory Committee for Aeronautics. It is expected to fly at a speed near 1500 miles per hour at 80,000 feet. Flights at supersonic speeds were not expected to be made until late next year, however.

Drones Fly Pacific

Two B-17 radio-controlled drones flew non-stop from Hilo, Hawaii, to Muroc Lake, Calif., Aug. 6 to set a long distance record for pilotless aircraft. The bombers and two "mother" planes made the 2174-mile flight in approximately 15 hours. Upon reaching the U. S. coast, one of the drones dropped a smoke bomb on a specific target off Santa Rosa Island. The bombing was done by remote control.

Spain Signs Up

Spain has accepted the first four freedoms of the air by accepting the Air Transit (Two Freedoms) and the Air Transport (Five Freedoms) Agreements with a reservation on the Fifth Freedom. This action was recently taken in a decree issued by Francisco Franco, Spanish Chief of State. The same decree also designated nine customs airports for international air traffic: Madrid, Barcelona, Seville, Valencia, Malaga, Las Palmas (Canary Islands), Tenerife (Canary Islands), Melilla (Spanish Morocco), Tetuan (Sp. Morocco).

New Budget Director

James E. Webb, formerly personnel director, secretary-treasurer and vice president of Sperry Gyroscope Co., before the war, was named director of the budget by President Truman.

Trophy Committee Named

Members for a committee to select the winner of the 1945 Collier Trophy, awarded annually by the National Aeronautics Association, in recognition of the greatest achievement in aviation, have been announced by L. Welch Pogue, NAA president. Heading the committee of which Pogue and William Redding, NAA, vice-president are ex-officio members, will be William P. McCracken, Jr. Redding will serve as secretary and Russ W. Nichols, technician.

Air Policy Bill Dies

The bill to establish a National Air Policy Board which was designed to do for aviation today what the Morrow Board did for military and civil aviation following World War I died in the last minute legislative jam in Congress.

Committees Merge

Only one of the two principal committees handling civil aviation were affected by the passage of the bill streamlining Congressional procedure. Under the terms of the reorganization act, the Senate Commerce committee is merged with the Senate Interstate Commerce committee into a new committee to be called the Interstate and Foreign Commerce committee. The new committee will handle legislation on aviation now under the jurisdiction of the Senate Commerce committee. The reorganization act thereby ends a fight between these two Senate committees over the question of jurisdiction. The House Interstate and Foreign Commerce committee remains as presently constituted. Possibility of the House being reorganized by the Republicans affects the chairmanship, now held by Rep. Clarence F. Lea (D., Calif.) who under a return of a Democratic majority would remain head of the committee. Ranking Republican member is Rep. Charles A. Wolverton of New Jersey.

Lend-Lease Settlements

State Department officials have announced the financial figures embracing the final settlement with Australia and France on lend-lease air transport aircraft. The U. S. government is to receive \$5,000,000 from Australia in a settlement involving 109 Douglas C-47 Dakotas, 11 Catalinas and 70 PB2B's, 300 engines, 195 propellers and a quantity of spare parts for engines and spare frames. In the settlement with France, this government is to receive \$2,850,000 for the following aircraft: 50, C-47B; 19, PBY5A; 2, C-60A; 25, C-45F; 67, UC-78; 25, BT-13B; 123, L-4 together with engines, spare parts for engines and a certain number of frames.

Trade Prospects Excellent

A report just released by the Department of Commerce indicates that prospects for extensive trade by air between the U. S. and Switzerland are excellent. Available in booklet form, for 5 cents, from the Supt. of Documents, U. S. Government Printing Office, the report is titled, "Air Cargo Potentials Between Switzerland and Non-European Regions."

To Law School

Edward Sweeney has resigned from the aviation division of the State Department and will join the faculty of the Northwestern University school of law in September. Sweeney served in the Navy during the war and was with the CAB prior to that. He has been active in his State Department post in negotiating agreements with foreign countries for the use and operation of U. S. surplus equipment in connection with international air services.

Flying Wing In Flight—

Here is the Northrop XB-35 bomber that has set an unprecedented record for trouble free performance since being delivered to the Army for tests. In this photo, the huge craft, weighing 209,000 lbs. in gross overload condition, is shown in clean flying position. The method of mounting coaxial propellers in pairs in the trailing edge is prominently shown.



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Foreign Air News

By Frank M. Holz

To Take PICAO Post—Lt. Commander Paul A. Smith is expected to succeed Gerald Brophy as the U. S. delegate on the Interim Council of the Provisional International Civil Aviation Organization (PICAO). Smith has been U. S. representative on the Air Navigation Committee and has coordinated the work of U. S. delegates to the various PICAO technical divisions. Senator Lister Hill has introduced a bill to permit Smith to accept the PICAO post without affecting his status as an officer of the Coast and Geodetic Survey.

Sets New Rate—American Overseas Airlines has established new single overall air express rates between the U. S. and European points which will result in savings to shippers from 14% to 25%. Effective August 3, the new rates are equal to or lower than any of the rates in the previous three weight classifications. Under the old rate a 45-lbs. shipment from New York to Stockholm would be charged \$89.55 as compared to \$67.50 according to the new scale. The new rate per lb. from New York to London is \$1.17, the rate charged shipments of 200 lbs. and over on the old scale. However, shipments between 50 and 199 lbs. were formerly charged \$1.30 per lb. to London and under 50 lbs. the rate was \$1.45. New AOA express rates apply to shipments originating from New York, Boston, Chicago, Washington and Philadelphia.

Limits PAA Flights—The Argentine Government has required Pan American Airways to limit the number of round trip flights between Buenos Aires and the U. S. to seven a week, the number granted in the airline's concession. PAA had been operating up to 14 weekly round trips under a "gentleman's agreement." Observers believe that the sudden order is connected with recent Argentine-British agreements which stipulate that no airline may receive concessions or privileges not also granted to British South American Airways.

• The de Havilland Aircraft of Canada Limited has received the first assembly line de

Havilland Dove feeder transport built by the British parent company. It will be used as a demonstration aircraft by the Canadian firm. The second Dove is reported to be ready for delivery to Australia for similar demonstration purposes.

• Aer Lingus Teoranta, the Irish airline, has taken over the operation of all scheduled air services between Eire and Great Britain as provided under the terms of the recent British-Eire agreement. Hitherto the service had been operated by the Irish company in cooperation with West Coast Air Services, a British company.

• The airport at Skegness, Lincolnshire, was recently sold at auction to a local resident in what may be the first instance in Great Britain in which a large airfield was disposed of in this manner.

• The Viking, British twin-engined medium transport produced by Vickers-Armstrong, Ltd., has been temporarily grounded because of defective plugs in the gasoline junction box, according to reports from London. Maj. Hugh R. Kilner, managing director, stated that the order affects only a few aircraft not yet in regular service.

• British Overseas Airways Corporation has reintroduced a ten percent round-trip fare reduction on its transatlantic "Speedbird" route. Effective August 1 the company also reduced fares on services between London and a number of points in Africa and the Near East. The fare to Ankara, Turkish capital, was reduced from \$383.80 to \$327.24.

• The newly-formed British National Gas Turbine Establishment has taken over the main functions of Power Jets (Research and Development) Limited and has also taken the latter's facilities at Pyestock (near Farnborough) and Whetstone. H. Roxbee-Cox has been appointed head of the new agency. However, Power Jets has not been liquidated and the government has decided to keep it in existence for possible future reactivation.

• Peter Masefield, British Civil Air Attaché in the U. S. and a private pilot, has received a Percival Proctor for use in connection with his official duties. The aircraft is owned by the Ministry of Civil Aviation.

• Miles Aircraft Ltd., of Reading, England, is reported to be negotiating with Argentine business interests to set up a Miles branch factory in Argentina.

• Air Services Limited, of Johannesburg, Union of South Africa, has ordered air pickup equipment from All American Aviation, of Wilmington, Del., according to Charles W. Wendt, AAA vice president. The equipment is to be installed in the Dragon Fly or the de Havilland Rapide type of aircraft.

PICAO Would Alter Procedures That Slow International Airlines

Important decisions affecting international air transport were announced recently by the Provisional International Civil Aviation Organization (PICAO) and by the International Air Transport Association (IATA), a world-wide trade organization of international airlines.

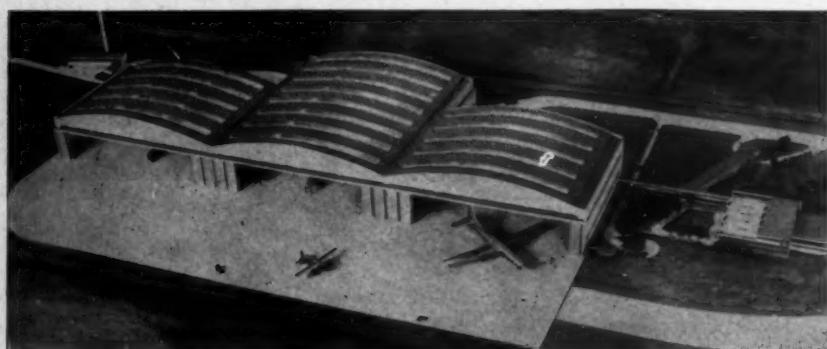
PICAO has sent its 46 member governments a report which recommends simplifying or eliminating national procedures that hamper airline operators and slow down air travel. Instead of existing tedious passport and visa systems, member nations are urged to issue a simplified non-immigrant passport" card for all travelers except immigrants. Standard airline crew-member certificates are also to replace passport and visa documents. If a member nation insists on retaining visas, they are to be made valid for one year, regardless of the number of trips. A separate visa is now required for each trip.

To reduce delays, government authorities are asked not to examine transit passengers, crew or cargo except for public health or other special reasons. Further, manifesting of passengers, crew and cargo in transit would no longer be required. PICAO also recommends establishment of customs-free airports and of customs-free zones at other airports. A standard international certificate of inoculation will reduce quarantine delays.

PICAO has also sent its members a manual of recommended standards compiled by its International Air Services Operations Division. This extensive document includes rules on: composition of flight crews, crew qualifications, maintenance, preflight clearance, fuel loads, distribution and securing of cargo loads, flight operation rules, flight aid from ground personnel, and various requirements of aircraft, air routes and ground services. Additional subjects will be considered at the second meeting of the Division scheduled for Feb. 25, 1947.

Sir William P. Hildred, Director-General of IATA, has pledged support to PICAO's "facilitation" program. The following have already been appointed to organize relevant IATA activities: H. H. Galbreath, Pan American Airways, for the Western Region, including Latin America; W. H. Risley, American Airlines, for the European Region; John Thurman, British Overseas Airways, for the African, Asiatic, Australasian and Middle East Regions. The IATA Subcommittee on Government Forms, headed by AFA vice president V. E. Chenea, will coordinate the work on a world-wide basis.

IATA has released some of the regulations adopted at its Middle East Traffic Conference held at Aley, Lebanon, from July 15 through July 20. The delegates extended the existing temporary rate structure but created a new subcommittee to analyze costs as a basis for future fare agreements. Decisions affecting passenger traffic included: a new schedule of free baggage allowances; 10% discount on round trips; a provision that indirect routing rates may equal the rate by the shortest route between two points; 50% fare for children between two and twelve.



Hangar for Brabazon 1.—Model of a \$7,000,000 hangar to be located at Filton, England, to house several Brabazon 1 airliners in the final stages of assembly and testing. A model of the 110-ton four-engined transport being built by Bristol Aeroplane Co. is shown at the right. The hangar will be divided into three bays with a total main floor area of almost eight acres. The concrete apron in front will use another 6½ acres. Folding motor-operated doors will be of aluminum and the back of the structure will be of insulated glass. Offices and storerooms will be built in tiers between the main structural supports. One runway has been in use for some time and the centuries-old village of Charlton will be wiped out with the construction of a second runway over 600 ft. long.

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Non-Scheduled Carriers to File Reports by September 3

**Sept. 15 Is Deadline
For Operating Certificates**

WITH PRESSURES continuing, pro and con, in the matter of regulating non-scheduled air services, the Civil Aeronautics Board is planning a thorough investigation of all issues involved and has postponed the deadline for filing comments on its proposed revision of Section 292.1 of the Economic Regulations from July 22 to Sept. 3. Offering assurance that no restrictive regulations will be imposed until the problem has been adequately explored, the Board indicated that it would arrange for oral presentations of views after expiration of the extended filing time.

CAB also has extended to Sept. 3 the time within which presently exempted air carriers must file their statements and reports as required by existing regulations, and has amended Part 42 of the Civil Air Regulations to give non-scheduled air carriers until Sept. 15 to apply to the Civil Aeronautics Administration for operating certificates.

On the July 15 deadline for economic and operating reports required of non-scheduled carriers by Amendment No. 2, Section 292.1 of Economic Regulations, only a fraction of the 300 statements ex-

pected had been received. However, much of the responsibility for the lag was found to lie with CAB, since suggested forms for use in filing the reports were not available in many parts of the country until after the original deadline had passed.

The air carrier operating certificates required under Part 42, now slated to go into effect Sept. 15, relate only to the application of safety standards covering non-scheduled air services, and are not connected with the proposed Amendment 3 to Section 292.1, which currently exempts such carriers from the need of obtaining a certificate of public convenience and necessity.

In outlining the application procedure for operating certificates under Part 42, Fred M. Lanter, CAA Assistant Administrator for Safety Regulation, has urged all operators to apply by letter to CAA Regional Offices or Washington headquarters before the Sept. 15 deadline. The letter should contain: (1) name of the operator, (2) principal operating base, (3) statement that the company is now in operation, and (4) statement that certification is desired under Part 42.

Those filing by Sept. 15 will be eligible to continue operation under the so-called "Grandfather" clause in the regulation until action is taken on their applications. Failure to file by that date will mean suspension of such operations until an inspection of aircraft and facilities can be made—and months will probably be required to complete these inspections.

Upon receipt of the letters of application, CAA Regional Offices will send out the formal applications for completion and return. CAA inspection of aircraft and facilities will follow, with certificates issued to those who qualify.

CAA officials estimate that between 7,000 and 11,000 applications will be received. Many of the operators, however, will not be subject to Part 42 and will be so notified.

Pacific Pilots Introduce Way To Finance Private Flying

Nearly 500 persons have been enrolled by Pacific Pilots Inc. under its "Learn to fly for \$15 per month" plan—and an expansion program, including the purchase of 12 new Aeroncas and a Republic Sea Bee, is under way, according to Robert Pike, president of the California company.

Although Pacific Pilots has its own operations at San Fernando and Gardena Valley airports, it franchises other airport operators who desire to use its sales plan, equipment and overhaul service.

"Under our plan, flying is put on a practical and economic basis," Pike pointed out. "In addition to student instruction, we make available ships for soloing at 30 per cent less than standard rental rates. A subscriber to Pacific Pilots can use the plane virtually as his own and fly it wherever he wants after he has earned his license."

Crowl Announces Aims Of Sales Promotion Setup

H. K. Crowl, director of Airborne Commodities Sales Company, Dayton, Ohio, has announced this facility to be devoting itself exclusively to the sale and promotion of wing-hauled perishables in Ohio and Indiana. The company's first contract was signed in April with the



H. K. Crowl

Ralph E. Myers Co., Salinas, Calif., for delivery of vine-ripened cantaloupes to eastern chain stores.

Future plans of the organization, according to Crowl, would include the establishment of distribution points at Dayton, Indianapolis, Cincinnati and Columbus, with facilities for dockage, temporary storage and pickup as soon as volume warrants. Business solicitation within a 40 mile radius of each airport, is also to be conducted.

Says All Air Carriers Should Be Scheduled

The Civil Aeronautics Board should terminate Section 292.1 of its Economic Regulations and apply the Civil Aeronautics Act to all common carriers by air, as intended by Congress. United Air Lines recommended in a brief filed with CAB in response to the proposed regulation of non-scheduled carriers. UAL urged that "common carrier operations in air transportation should be conducted on a scheduled basis unless irregular service is justified by some reason other than the mere desire of a carrier to operate without a certificate of convenience and necessity . . . The common carrier should be a scheduled operator. The public is entitled to know scheduled departure and arrival times of common carrier planes."

Pan American Airways indicated belief that the proposed amendment constituted a desirable step toward full economic regulation of all air carriers, and declared that it would oppose any amendment which would exempt operations of non-scheduled carriers to any greater extent than that proposed by the Board.

Matson Navigation Co. has protested the proposed exclusion of Hawaii from the areas which may be served by non-scheduled carriers from continental U. S.

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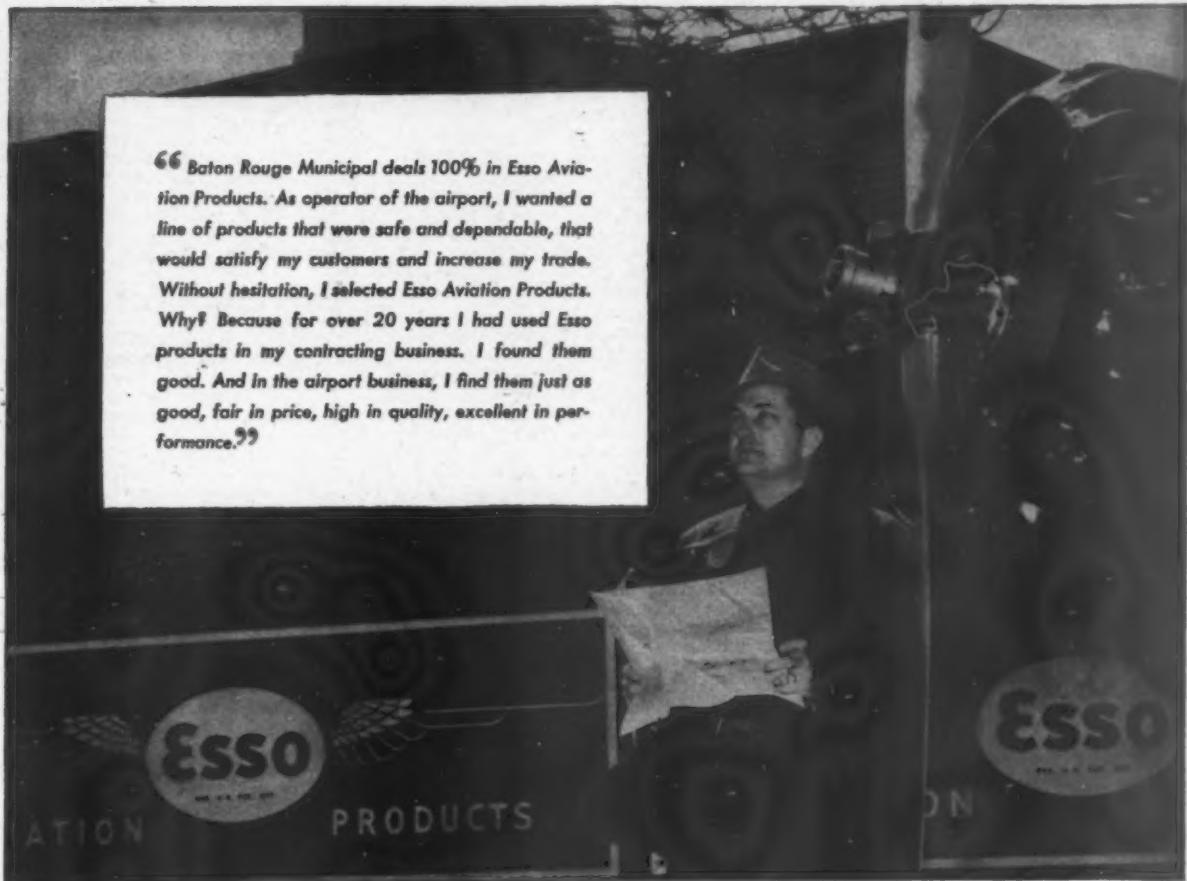
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Bill Eberhart, president of Louisiana Aircraft,
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Steamship Firm Seeks To Convince CAB of Air Ability

Free Enterprise A Ruling Factor Asked By Waterman

By KENNETH E. ALLEN

WATERMAN Airlines of Mobile, Ala., is operating a "tramp" overseas operation with DC-4 equipment and losing money at it. But the steamship company says it is determined to prove to the CAB that it is qualified to operate a scheduled airline service—and wants to be so certificated.

Carol B. Waterman, vice president of the steamship company and ardent champion of its air arm, has built his airline organization around the NATS pilots with whom he was associated during the war. Most of the service pilots have had previous airline experience. Waterman has been a pilot since 1927.

Jack W. Thornburg, Waterman's vice president-operations is a former TWA captain and served in a command post with NATS during the war. Thornburg's reputation as an organizer and operator has drawn a surprising number of qualified transport pilots into the Waterman fold.

Waterman's self-styled "tramp" operation flies chiefly between U. S. points—New York, Washington and New Orleans—and San Juan, Puerto Rico, on a non-scheduled basis. Fares are 10% below those charged by the scheduled air carriers, since, as Carol Waterman points out, there is about that differential between tramp steamship and regular liner service.

I rode with Waterman on a special press flight from Washington to San Juan, thence back to New Orleans and back to Washington. The operation is on a parallel with scheduled airline service. The DC-4 in which we flew was a plump job in every sense of the word.

The crew included Capt. Ross T. Frederick, a former TWA and NATS pilot; First Officer Richard Shelton, Navigator Robert Darmstad, Flight Engineer Walter Post, Cruise Director Harry Taber and Hostesses Kathleen Redmond and Ellen Rouse. Miss Rouse was a TWA hostess

for two years before joining Waterman.

Waterman said the DC-4, the only four-engine aircraft the company has at present, was a new ship. It was fitted out to carry 44 passengers. Its interior appointments, set off by forest-green gabardine and leather trim, provided every comfort while in flight.

The initial hop from Washington to San Juan, a distance of about 1600 miles, was made in 7½ hours, flying direct, non-stop. We flew the same way returning to New Orleans in about the same time, and made the final leg from New Orleans to Washington in 4½ hours non-stop.

Waterman has its own ground-handling facilities at San Juan, where it shares space at the Naval air station with Pan American Airways, Caribe Airways and a host of non-scheduled operators. Ground handling facilities at Washington were handled by TWA, and at New Orleans by National Airlines.

Carol Waterman will tell you quite frankly that his airline already has two strikes against it insofar as CAB policy is concerned, but that he is determined to prove to the Board that his company can be a competent airline operator. As for the Board's stand on the operation of an airline by a steamship company, Waterman admits that this is the major hurdle.

"As far as I am concerned," says Waterman, "I want free enterprise to be the ruling factor. If an airline wants to start a steamship service in competition with ours, I say let them go to it. If they take away our business, that's our tough luck. The same rule should hold for steamship companies wanting to get into the air."

Waterman began its airline operations with a fleet of Lodestars running an intrastate service in Alabama. It flies three schedules daily serving Birmingham, Montgomery and Mobile. It's a losing proposition, but again the steamship operator is chalking it up to experience to lay before the CAB.

The Waterman company is well entrenched in the Caribbean trade. It has been operating steamers in that and other services for 23 years. Carol Waterman believes that his company should be

authorized to protect that trade stake with an air arm.

Waterman's over-water DC-4 operations show an amazing elasticity—some of it done purposely to prevent the establishment of a service pattern which could be called anything but non-scheduled. Flights to San Juan are shifted around between New Orleans and New York and on Aug. 6 and 10, the DC-4 was shifted to the West Coast to fly two transpacific trips under charter to Matson Navigation Co., between San Francisco and Honolulu.

Waterman has high hopes for combination cruises into the West Indies—one-way by air, one-way by boat. But it frankly admits that Puerto Rico's tourist facilities will need considerable expansion before that day comes.

San Juan has two first-rate hotels, but they are much too costly for the average tourist. Some planning is being done to encourage tourist trade, but nothing spectacular. Puerto Ricans have too many other economic problems facing them to worry too much about it.

Mercury Asks Permit As Freight Forwarder

Soon to file an application with the Civil Aeronautics Board to be certificated as an air freight forwarder is the Mercury Airfreight Corporation, which has just been organized in Los Angeles and is starting business as a general agent for air cargo shippers.

Well financed and staffed with experienced transportation personnel, the Mercury Airfreight Corporation exemplifies the evolutionary progress which is taking place in the transportation of freight by air throughout the country and especially on the Pacific Coast.

Initially the new company is transporting air cargo between Los Angeles and New York on a daily basis, guaranteeing shippers second morning delivery at destination and free pickup and delivery and is making public its tariffs. Subsequently, it plans to extend the service to 14 additional points in the east where it is preparing to open offices to augment those now established in Los Angeles and New York.

Operating no aircraft of its own, Mercury Airfreight Corporation uses mostly the non-scheduled carriers, but also uses the certificated airlines where they best serve the shipper's interest.

Although it differentiates between its present position acting as general agents and the business of freight forwarding, the new company's aim is to engage in all phases of air freight handling except that of actual flying and it is for this reason it will make its application to the CAB to be certificated.

President of the new company is Fredric M. Blow, who is president of Red Aeres Mexicana, S. A., a Mexican airline, and a director of Aero Industries of New Haven, Conn. Nile O. Greer is vice president of traffic operations; W. L. Thompson is vice president of sales and transportation, and W. W. Goldsborough is secretary-treasurer.

Greer and Thompson are partners in the Greer-Thompson Company, Los Angeles traffic management firm of long standing. Goldsborough is president of the Midland Aircraft Company of Wichita and a member of the New York Stock Exchange.

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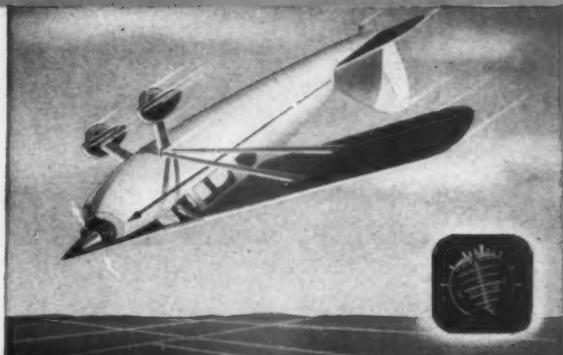
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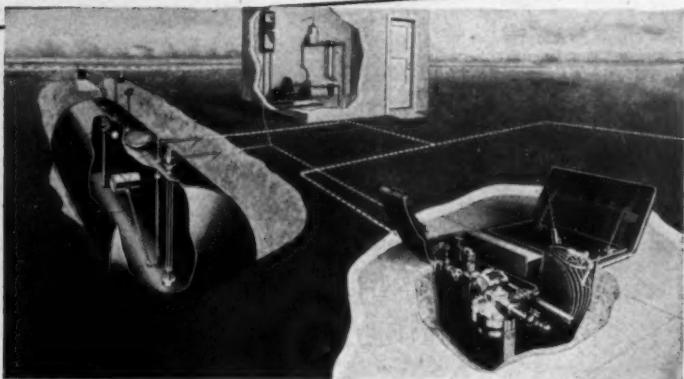
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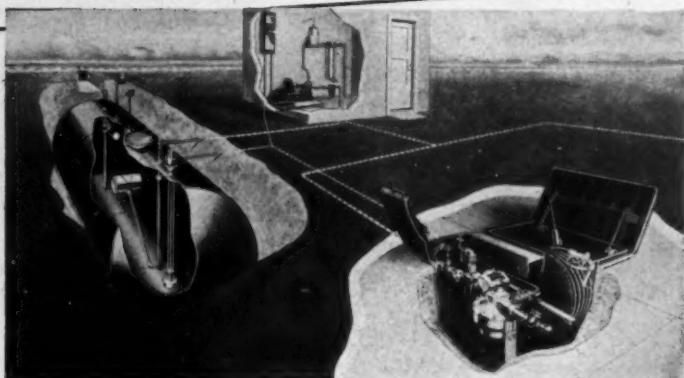
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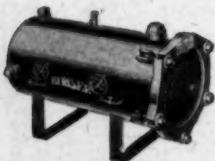
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American Airlines To Use New Type Ticket For Domestic Routes

Al Hargreaves, of American Airlines New York sales department, is the designer of a new type passenger ticket that is to go into use on all AA domestic routes, as soon as available from the printer. Advantages of the new ducat over the older forms, are many and, so well pleased was the AA suggestion committee that it awarded Hargreaves a \$250 prize for his design.

The new ticket is preprinted with multiple destinations already listed. Ticket agents will sell it simply by tearing off that portion of the ticket beyond the passenger's destination. Fares to all points listed are also printed on the ticket. This saves time in writing in the destination and the fare. The agent merely writes in the flight number, date and hour of departure. The ticket may be issued in 10 to 15 seconds as compared with the two or three minutes required for present tickets.

Hargreaves design is also destined to save time in the auditing department and will eliminate the need for frequent filing of refund blanks. It is also believed that the form will assist in providing a better check on passengers boarding airplanes. After six month's use, the ticket will be re-evaluated for an additional cash award.

Frozen Foods To Expedite Meal Service In Flight

Northwest Airlines has adopted frozen foods to be served on the new fleet of Stratocruisers and Martin transports, when they are placed on scheduled runs. Thus, air travelers may enjoy the luxury of piping hot dinners alight, the entire menu being prepared within 15 minutes.

Enough food for as many as three meals will be carried on the longer runs. Components of the meals will be cooked on the ground and then frozen and packed in insulating boxes aboard the plane. At mealtime, the food will be made ready for serving after it has been heated for 15 minutes in a Maxson electric oven.

Galleys, as complete as the home kitchen, are being installed on the NW 80-passenger Stratocruisers, at a cost of \$12,000 each. Two stewardesses and a steward will be enabled to serve 96 meals per hour, when using frozen foods, it is estimated.

15 Nations Recognize AAA Pick-Up Developments

All American Aviation has been issued patents on air pickup equipment in 15 countries, it has been revealed by Robert M. Love, president. Two of many important inventions which have evolved from the development of the equipment now in use, are being covered by the patents in England, Canada, Central America, South America and the United States.

In addition to the nylon shock line and the unit that involves the time delay mechanism, of the brakes of AAA inventions methods, assisted by pickup and a special pick-up mail container.

Uniform Airbill—New uniform airbill already in use among six of the domestic airlines and slated to be adopted shortly by others is this sample utilized by Western Air Lines in its air freight business. Others using the same form, with only a change in name, are Braniff Airways, Continental Airlines, Inland Air Lines, PCA, and TWA. The form simplifies as well as standardizes air freight procedure.

Lack of Airports to Limit Wiggins Service In New England

Lack of airports in New England is destined to deprive many communities of scheduled air service when Wiggins Airways begins operations, according to Joe Garside, president of the certificated company. Cities and towns to be bypassed because of inadequate landing facilities include Framingham, Lowell, Greenfield, Turners Falls, North Adams, Adams, Pittsfield, Northampton, Southbridge, Brockton and Taunton, all in Mass., and Bennington, Vt., and Manchester, N. H.

Garside announced that the Wiggins line will probably begin service between Albany and Boston with stops at Keene, N. H., and Lawrence, Mass.; between Albany and Boston with stops at Orange; between Albany and Boston with stops at Springfield and Worcester; and between Springfield and Boston with stops at Hartford, Willimantic and Providence.

Sign Agency Agreement With Foreign Airlines

General agency agreements have been completed between TWA and a number of foreign air carriers in which these carriers will represent the United States company in their respective territories and TWA in turn acts as their sole representative in this country. Additional foreign agency agreements are in negotiation, covering five continents, according to E. O. Cocke, vice-president in charge of traffic.

Agreements already in force are with: Australian National Airways Pty. Ltd.; Ethiopian Airlines; "Iberia" Compania Mercantil Anonima de Lineas Aereas, S.A. (Spain); MISR Airwork, S.A.E. (Egypt); Swissair and TATA Air Lines (India).

ATA Buys Own Plane To Conduct Weather Flying Experiments

A Douglas C-47 aircraft has been purchased by the Air Transport Association and put into use by its Air Navigation Traffic Control Unit to carry out experiments designed to hasten the day of all-weather flying on the nation's commercial air routes.

An industry policy committee, headed by John A. Collings, vice president of transportation, TWA, has decided that ANTC shall make a long range study of air navigation, determine what the problems will be some years hence and then fit technological developments into a program which is designed to remove the obstacles to safe and dependable air transportation. The policy committee decided in favor of a long range study rather than a piecemeal approach.

ANTC is being directed by W. E. Rhodes, a former United Air Lines pilot, who served as Gen. MacArthur's pilot during World War II. Rhodes is also an aeronautical engineer. Other technicians associated with Rhodes in this work are: Vernon Weibe, electronics and radar expert stationed at Wright Field during the war; H. I. Rothrock, communications engineer with FCC and CAA experience; Frank Brady, signal and electronics expert stationed at Wright Field during the war, and Charles McAttee, flight engineer, formerly a first pilot with American Airlines.

These technicians are now supervising the installation of M. E. W.—high powered radar set—in the C-47 which is being based at Grumman Aircraft Engineering Corp., Long Island, New York. In Addition, VHF radio equipment is being installed so that the aircraft can be used in test flights on those airways where VHF equipment is in use.

Tests with the powerful radar apparatus will be made in the New York area first, Milton W. Arnold, ATA vice president-operations and engineering, stated. Arnold explained that the purchase of the C-47 is part of the \$307,000 program for study of air navigation and traffic control problems recently approved by the ATA board of directors. He stated that the ATA program was supplementary to and co-ordinated with extensive research work being done by the Army, Navy, and CAA.

Use of radar ground installations in tests which are expected to reveal any possible application of radar to airport use will be employed in plotting airborne traffic in the New York area study, Arnold stated. Coastal areas in the New York and Los Angeles-San Francisco areas also are a part of the proposed program. Basically, he stated, the coastal airways are a "road widening" project which will increase the number of airlanes to handle growing traffic.

"Time-loss" studies will be made in three principal categories, including cancelled flights, flights interrupted either by diversion to alternate airports or by landing delays, and the gamut of ground delays, including such problems of flight clearance, taxi traffic tie-ups and others.

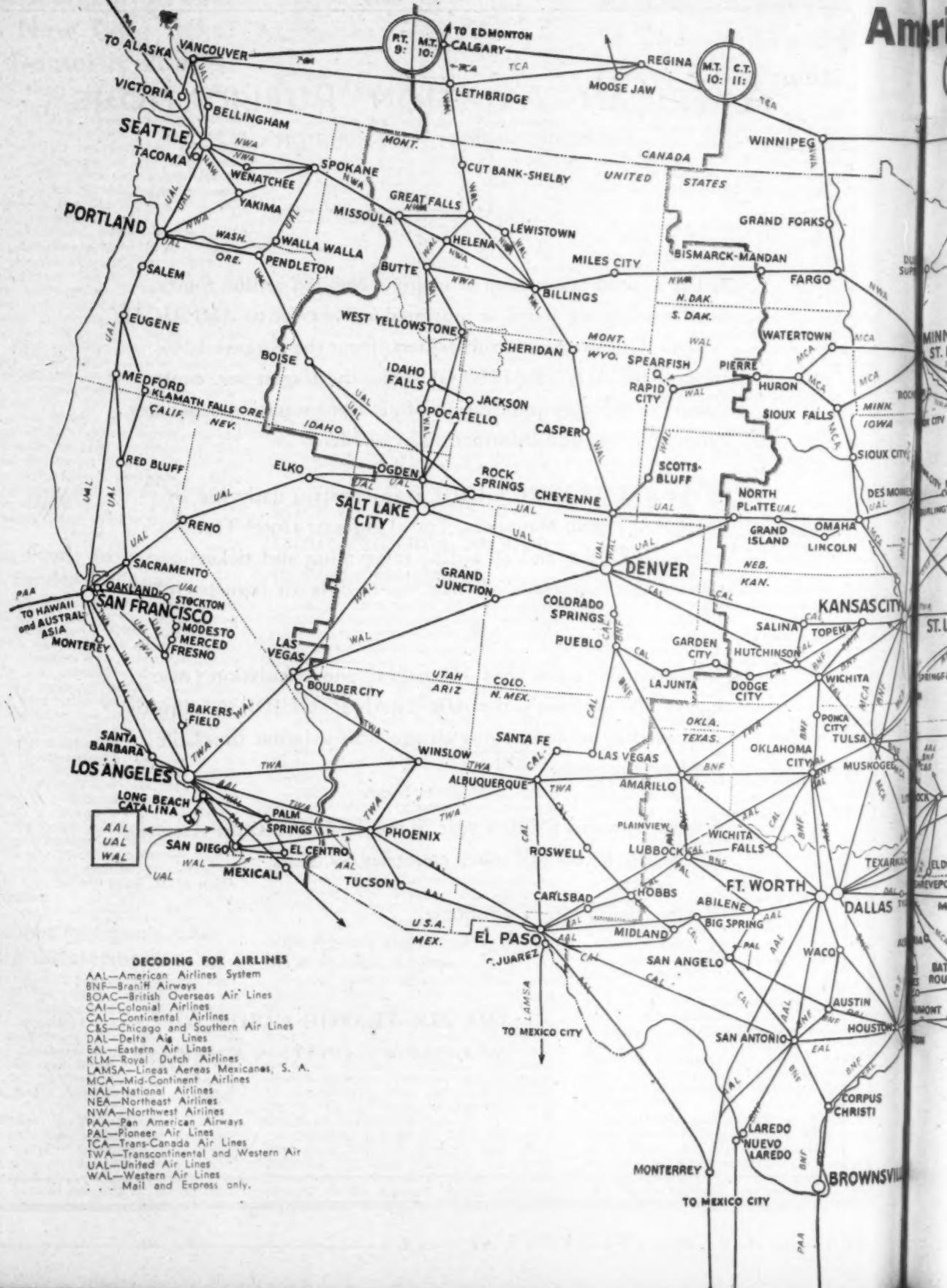
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- ¶ The United States map of major scheduled airline routes on the following pages is reprinted as a service to AMERICAN AVIATION Magazine subscribers, from the August 1946 issue of the AIR TRAFFIC GUIDE—the largest and most complete monthly publication of air transportation schedules, rates, routings and information available.
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- ¶ In content (more than 212 pages) and circulation (nearly 14,000 an issue), the AIR TRAFFIC GUIDE has already surpassed by wide margins all previous aviation timetable publication goals.
- ¶ Subscriptions: \$7.50 a year in the U. S. and Latin America. In Canada \$8.00. All other countries \$9.00.
- ¶ Advertising rates on request.

THE AIR TRAFFIC GUIDE
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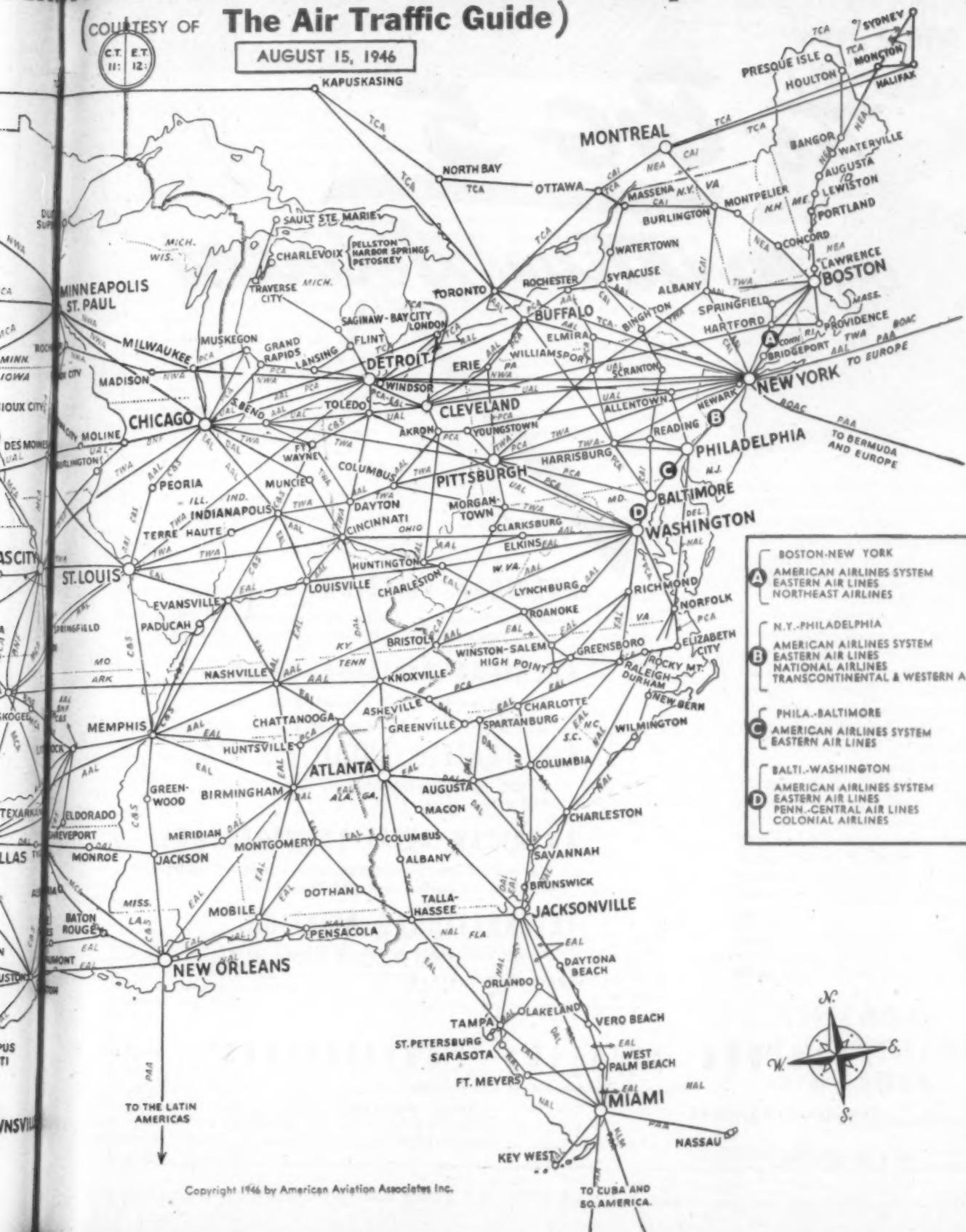
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American Aviation Airline Map

(COURTESY OF The Air Traffic Guide)

AUGUST 15, 1946



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Airline Commentary

By ERIC BRAMLEY

There have been numerous squawks of late regarding the type of service being offered by the airlines . . . Wherever you go you hear that passengers are unhappy . . . Fortune even did an article (which we thought went way off the deep end) . . . Admittedly things aren't what they used to be, and it's encouraging to note that the airlines realize it and are trying to improve . . . C. Bedell Monro, president of Capital Airlines-PCA, has written an excellent piece in the new issue of the company's *Capitaliner* . . . He says that competition makes it necessary to appeal to a "market never before courted by purveyors of air transportation," and that air transportation can now be afforded by practically everyone . . . But the part of his statement that we particularly like is this: "There are among us, I regret to say, people who have a decidedly snobbish attitude about air travel. They actually seem to want to restrict flying to those in the upper income brackets. This superior attitude is reflected in the condescending way in which they treat passengers who are obviously traveling by air for the first time; by the dead-pan faces at the ticket counter when serving the average passenger; by the tone of voice used in answering 'foolish' questions. Capital Airlines-PCA is not that kind of airline. We are in business to give personal attention and service to everyone who wants to fly. Just because some of us discovered the pleasures and conveniences of air travel a little sooner than most, does not mean we are superior beings. We do our chosen business great harm by acting as though there is something esoteric about flying. If we really are sold on air travel, we'll want to share that enthusiasm with everyone. We'll want each person who comes our way to enjoy flying as much as we do. We'll treat even the casual seeker of information with the same smiling courtesy we'd accord the President of the United States and we'll make certain that every air traveler—neophyte or old timer—is given the same kind of friendly service that sold us on air travel in the first place" . . . That's what we call laying it on the line . . . It's good advice for a lot of people . . .

Not so long ago we made a few derogatory remarks about the picture of the airplane on the 8¢ air mail stamp, saying that it didn't look like anything that was flying today . . . Now comes a letter from a gentleman in River Forest, Ill., saying that the comments are interesting "but did you ever notice the airplane on United Air Lines' airmail sticker? There are no engines on United's airplane" . . . He encloses one of the stickers (the kind that are used on air mail letters) and sure enough, the airplane doesn't have any engines . . . Oh well, maybe it's a jet job . . .

Those in-flight reports that some airlines circulate among the passengers, telling what point you're flying over, speed, etc., inspire many a pilot and co-pilot to poetry, humor, etc. . . . We have two examples submitted, both involving American Airlines . . . An AA DC-4 from Washington to New York was delayed in landing at LaGuardia, and Capt. J. H. Catchings circulated the following: "We've been told we'll have to hold awhile before we land; with traffic and weather conspiring together, we're doing the best we can" . . . On a Washington-Indianapolis trip, Capt. L. H. Martin and First Officer C. Krauser gave forth with this one: "Over Elkins, W. Va. Good old hill country. The legs on the cows in these hills grow six inches longer on one side from standing on the side of the hill. That's a joke, son" . . . With this latter statement some people will agree, others won't . . .

One of our spies turns in the following intelligence report: "United Air Lines operates the Reno, Nevada, airport. It has slot machines in the terminal. The machines are well patronized. It is rumored that they net \$600 a month. But in all the years that United has run the airport, it has turned over complete total net from the slot machines to Reno charities" . . . This, we think, is a commendable undertaking . . . We may even patronize the one-armed bandits in Reno . . .

The Santa Fe Railroad has bought some C-47s to enter the air cargo business, but years ago the Santa Fe didn't think the aviation business was worth much . . . People who have been around for a long time tell us that when Universal Airlines was operating in the midwest, the pilots had to carry considerable cash with them so that if the schedule was canceled somewhere along the Santa Fe, the pilots could buy railroad tickets with cash . . . It seems that the Santa Fe under no condition would honor a check from the airline . . .

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Airline Personnel



Vincent

McKenzie

Bitter

Don H. Robinson has been promoted to the post of employment manager for the eastern region of United Air Lines. He formerly headed the UAL personnel office in New York where he has been succeeded by **Jack Borngrebe**.

Vance L. Tomlin, formerly district sales manager for PCA at Birmingham, has been promoted to district general sales manager at Chattanooga. He will direct all PCA activities in the Tennessee district.

John Paul Andrews, formerly connected with the Phillip Andrews Publishing Co., has been named publicity director for Chicago and Southern Air Lines. He succeeds **George Bounds**, resigned.

Selby Calkins has been appointed public relations manager for the Pacific-Alaska division of Pan American Airways. Formerly an aviation writer and editor, Calkins served as an officer with the 20th Air Force and with the staff of General Spaatz on Guam. **Voit Gilmore** has also been named as PAA/public relations representative, to be associated with **Ivy Lee, Jr.**, at San Francisco.

William D. Weller has been named system chief reservation agent for Mid-Continent Airlines at Kansas City. **Glen M. Wilson** and **Wayne A. Sprague, Jr.**, have been appointed to similar regional offices.

Col. K. D. McKenzie has been named to head

the newly created agency and interline office of Northwest Airlines. Before serving with the Army in the Mediterranean theatre, McKenzie was with the Alaska Steamship Company.

Roy F. Vincent has assumed duties as director of personnel of the Continental Air Lines. He was formerly with the industrial relations department of E. I. DuPont de Nemours Co.

C. H. Jones, Jr., former Norfolk district sales manager for PCA has accepted a similar office at Washington. **Gilbert Paul**, Washington traffic representative has transferred to Birmingham as district sales manager. **M. J. Barnes**, traffic representative in Knoxville has assumed similar duties in Washington. **M. T. Bellah**, Greensboro district sales manager has been transferred to the Knoxville office. **Douglas Parsons** of Greensboro has been upped from traffic representative to district sales manager.

Oscar Bergstrom has been appointed general traffic manager for Florida Airways. He was formerly assistant general traffic manager for Delta Air Lines.

Ralph K. Mulford, former reservations manager for Eastern Air Lines, Boston, has been promoted to the office of city manager. He has been with EAL since 1936 and served with the company's division of ATC, during the war.

Lauri E. Wickeri has been named Atlantic division accountant for Pan American Airways. Before joining PAA in 1942, Wickeri was with the Chase National Bank in New York.

Guy M. Springer has joined Pennsylvania Central Airlines as director of cargo sales. He was formerly mail and cargo traffic manager with Braniff.

Philip D. Armour, Chicago business leader, has been elected a director of Northwest Airlines, to fill a vacancy on the board. His election is now subject to approval by the CAB.



White

O'Brien

Golson

Major Roger H. B. Davis of TWA has been awarded the Legion of Merit for his wartime work with the Air Materiel Command. He is now administrative assistant to the TWA secretary at Kansas City. Before the war, he was with the sales department of Douglas Aircraft Company.

William Bitter, Jr., southern division personnel manager for Eastern Air Lines at Atlanta, has been transferred, in the same capacity to Miami. He was originally employed by EAL at LaGuardia Field in 1941.



Peck

Harris

Farrell

C. W. Blahey has assumed the post of district traffic manager for PAA in Honolulu. He succeeds R. E. MacGregor who has been assigned to the Pacific-Alaska division headquarters in San Francisco. Other PAA appointments in Honolulu include W. A. Eisener, district sales manager; K. G. Jones, district reservations manager, and Robert Jose, airport traffic manager.

Lee W. Golson, recently discharged from the ATC has rejoined Eastern Air Lines as traffic representative at Atlanta. **William Bitter, Jr.**, southern division personnel manager of Atlanta, has been transferred to Miami in a similar capacity. He joined EAL at LaGuardia Field in 1941.

Elmer Harris has entered the Seattle office of Pacific Northern Airlines, as assistant to Karl K. Katz, general traffic manager.

Rigit R. Dykstra, former secretary of the Netherlands Consulate, Chicago, has been named manager of United Air Lines agency and travel office, Philadelphia. He has recently been a captain in the AAF.

James P. Farrell has been transferred from his post as district manager for Eastern Air Lines, Mexico City to serve as city manager at Houston, Texas. A 12-year veteran with EAL, Farrell served earlier in posts at New York and Chicago.

Walter D. Peck is filling the newly created position as director of new route development for American Airlines in New York. In aviation since 1929, Peck has served in various capacities with WAE, TWA, Braniff, Pan American-Grace and the CAA.

William K. O'Brien, former American Airlines ticket counter supervisor at New York airlines terminal, has been appointed manager of reservations and ticket offices, Albany. He joined AA in 1943 following discharge from the AAF.

Thomas J. White, Jr., former travel agency representative in New York for Eastern Air Lines, is now manager of the agency in the Great Lakes division. He will have headquarters in Detroit where he replaces **Frank H. Mattix**, who was recently promoted to district manager for EAL at Philadelphia.



Bergstrom

Tomlin

Mulford

McGee

Haney

Lincoln

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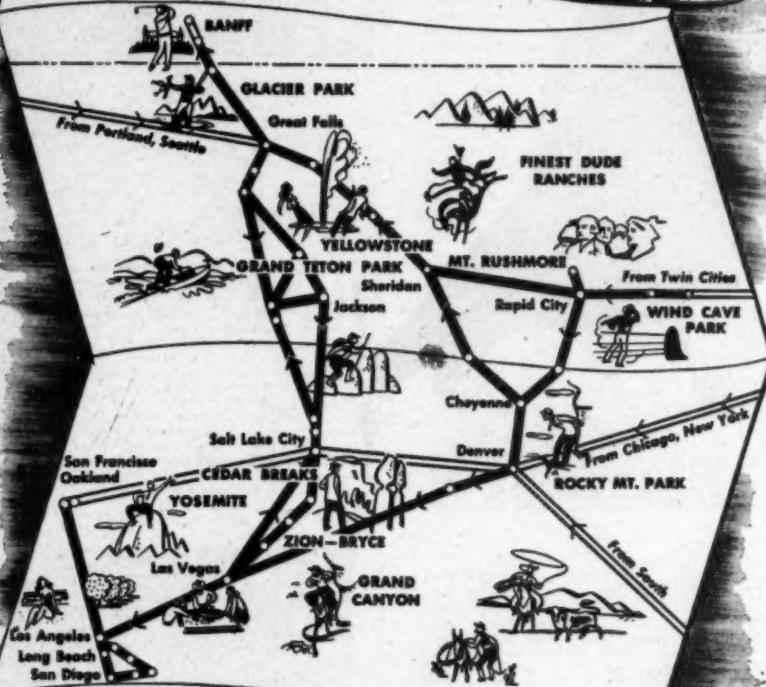
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Customs Procedures Handicap Air Travel

Outmoded and complicated customs procedures are proving a serious handicap to international air transport and world trade, according to an address by R. E. Whitmer, TWA system cargo sales director, to a group of local businessmen, recently assembled to participate in a kickoff for St. Louis aviation month. Advocating a simplification of the methods now in practice, Whitmer stated that customs procedures had failed to keep abreast of transportation progress and should be modified to meet the needs of the day.

The speaker pointed out that today's customs procedures were planned around steamship requirements where boats would be in dock for several days and the customs house was side by side with the port. The planners didn't contemplate the day when aircraft would be making 35 minute stops at airports, miles from the city, while enroute to foreign destinations. Under the current regime, cargo destined for Europe from the U. S., must arrive at the eastern ports of embarkation at least 24 hours prior to flight departure and the flights must be completely closed out two hours before departure in order to afford proper clearance through customs and to make certain the necessary manifests are prepared.

CAB Examiners Recommend Consolidation Of Routes

Certificate amendments for Transcontinental & Western Air, American Airlines, and United Air Lines to allow each carrier to consolidate certain of its routes were recommended July 31 by CAB Examiner Herbert K. Bryan.

The examiner's report recommended: (1) consolidation of TWA's Route 44 with Routes 2, 37, 61, and 67 into a single route, with the restriction that non-stop flights between Chicago and Boston be permitted on through schedules to or from points west of Chicago only; (2) consolidation of American's Routes 4 and 30 into a single route; and (3) consolidation of United's Routes 1 and 11, subject to the restriction that flights from or to Los Angeles or points south, to or from points east thereof, shall be directed via San Francisco or Sacramento, except those operating non-stop between San Francisco and Chicago or points east thereof.

Reduced Air Rates Encourage Drug Shipments

A reduction of air freight rates to 10c a ton-mile would result in the shipment of 20% of all drugs and pharmaceuticals by air, according to a study made by Wayne University's Air Cargo Research program. Under the prevailing rate of 15c a ton-mile, only 1.45% of the drug traffic goes by air. "Air Cargo Potential in Drugs and Pharmaceuticals" is the third of a series of Wayne University studies in air transport and is now available for distribution by the Wayne University Press, according to Dr. Spencer A. Larsen, director of the research program. Basic information for the study was obtained from 21 leading drug firms.

New Aircraft for an Age of Flight

America's victory was due, in a large measure, to supremacy in the air. Bigger, speedier, more efficient planes were designed by U. S. engineers, built by U. S. workers and flown over battlefields by U. S. airmen around the world.

The superiority of our aircraft was a symbol of America meeting the challenge of those who would destroy our way of life.

With the defeat of our enemies, new planes will be coming to serve the public. They will help us lead in peace as we did in war. They will bring new conveniences and comfort never before approached in the history of air transportation.

With these planes begins the true age of the air—helping men and nations grow closer together, expanding the vision and improving the life of all the peoples of the earth.

The coming of new aircraft represents the flowering of American industrial imagination and enterprise. This country has always believed in the continuing improvement of machines as well as men. The service given by better machines has helped America grow in more ways than the purely physical.

America's future will be greater than its past because it is a country where progress is an integral part of our heritage.



President and General Manager
Eastern Air Lines, Inc.

E A S T E R N A I R L I N E S



A Time Saver

Air travelers who make their reservations by telephone, will find their tickets made out and waiting for them when they call at the PCA window. This time saving service is already being tested at several points and is expected to go into effect at all stations, very soon. This practice will reverse the customary procedure of patrons waiting for their tickets. Instead, travelers will find their tickets waiting for them.

Would Speed Payment Of Airline Clearing House Balances

The Revenue Accounting Committee of the Air Transport Association has under consideration the adoption of a plan to speed up payment of Airline Clearing House balances to the carriers in connection with their interline business relationships.

Under the system now in effect, the airlines must wait for their pay from the Clearing House until two perforated records—one sent by the airline selling the ticket, the other by the airline furnishing the passenger a part of the flight service—are brought together through a collating machine. An airline sends in these thousands of sales stubs the first of the month, together with a check covering what it owes the other airlines. The Clearing House cannot disburse the money until these sales records have been matched. Oftentimes there are delays because the traveler who bought the ticket does not complete the full interline journey in continuous travel.

Eliminate Transaction

It is now proposed that the Clearing House shall make payment on the basis of the sales stubs of the airlines which sold the service. The other half of the transaction would be eliminated. Thus the carriers could receive balances due them much sooner than under the old system, and the amount of work involved would be greatly reduced.

Edward Kelly, secretary of the Revenue Accounting Committee, stated that the Clearing House carries balances at times approximating one million dollars. The new system, it is believed, would cut down the amount of this idle money considerably through more prompt and up-to-date payments to the airlines.

The Airlines Clearing House, Inc., of which Lowell Harter is vice president, treasurer and manager, handles approximately 225,000 of these perforated cards a month. Payments received from airlines and paid out to airlines is currently running between six and seven million dollars a month. Some months last year, it reached almost eight million dollars.

Located at 173 W. Madison street, Chicago, the Airlines Clearing House employs about 50 people. It was established Jan. 1, 1943 and has been an unqualified success. Before that time, an airline was required to make settlements with all of the other airlines with which it had an interline business.

New Services:

Eastern Adds Flights To Score of Cities

• Eastern Air Lines, August 1, added new and speeded up daily air services affecting a score of cities over the company's 23-state system and including the inauguration of the first non-stop service between Boston and Washington and between Boston and St. Louis, via Washington and Louisville. The new schedules were made available with the delivery of more new four-engine equipment, according to Eddie Rickenbacker, president of Eastern.

• Pan American Airways new schedules have boosted the number of flights between the U. S. and Latin America, since August 1. In some instances, seating capacity between points has been more than doubled. Schedules added include an additional daily flight between New York and Puerto Rico; a new daily non-stop between Miami and Panama; a second daily service connecting New Orleans and Panama and an additional daily service between Miami and Puerto Rico. PAA is also adding an extra daily flight from Panama westward to Barcelona, Venezuela; a new "all daylight" flight from Miami to San Jose, Costa Rica and additional all-cargo flights between Miami and Barranquilla, Colombia, it is announced.

• Douglas DC-4's have replaced DC-3 equipment on the PCA runs between Chicago and Willow Run, making PCA the only operators of four-engine equipment in Detroit and providing the fastest air service between the two cities. New express flights between Chicago, Detroit, Pittsburgh and New York are scheduled to leave Chicago daily at 10:15 a. m., 2 p. m. and 10 p. m. Two new daily schedules, linking Chicago and Detroit are also designed to serve passengers destined for various Michigan cities and recreational centers.

• Northwest Airlines has inaugurated daily non-stop four-engine service from the Twin Cities to Spokane, a total of 1,262 miles. Current schedules also advertise an added DC-4 flight between Chicago with stops at the Twin Cities and Billings. Other non-stop schedules include a link between the Twin Cities and New York and another from the Twin Cities to Newark. One DC-3 flight to Newark has been discontinued. NWA now offers eight daily schedules between Twin Cities and New York and 17 daily flights from the Twin Cities to Chicago. Several new daily DC-3 services are also being added to provide stops at intermediate points.

• United Air Lines has inaugurated direct four-engine service over the new Salt Lake City-Seattle-Tacoma cut-off and has begun non-stop flights between Portland and Los Angeles. Four-engine Mainliners are also being used on the Hartford, Boston, San Diego and Vancouver routes, in addition to the service already in effect to New York, Denver and Boise.

Open New Station

Air France, the French National Airline, is the first European operator to establish its own midtown departure station in midtown New York. All flight formalities are taken care of at the new office at 48th St. and Madison Avenue before passengers are transported by limousine to LaGuardia Field. The opening of the city station has eased congestion at the airport and contributed much to the comfort of passengers. Air France representatives have announced.

Adequate Air Rules Are Lacking In Latin America, Says Adams

Geography and economics create tremendous opportunities for aviation development in Central and South America but government programs for adequate regulation are sorely needed, according to Alvin P. Adams, head of Alvin P. Adams and Associates, aviation consultants.

Adams has just returned from a South American trip in which he visited every country except Bolivia. He found airline load factors extremely high on many routes and told of sitting in a jump seat placed in the aisle of a Junkers Ju-52 operated by the airline VASP between Sao Paulo and Rio de Janeiro. VASP officials told Adams that the company had been operating on this route at more than 100% capacity—because of the jump seats—for the past five months.

Lack Management

Adams reported that, in general, little is being done to correct the lack of adequate government regulations and he expressed the fear that it would take serious accidents to force some governments to take corrective measures. Illustrating the lack of safety provisions, Adams pointed out that Rio de Janeiro, which has a difficult approach problem, has no set procedure or control and various lines observe materially different minimums.

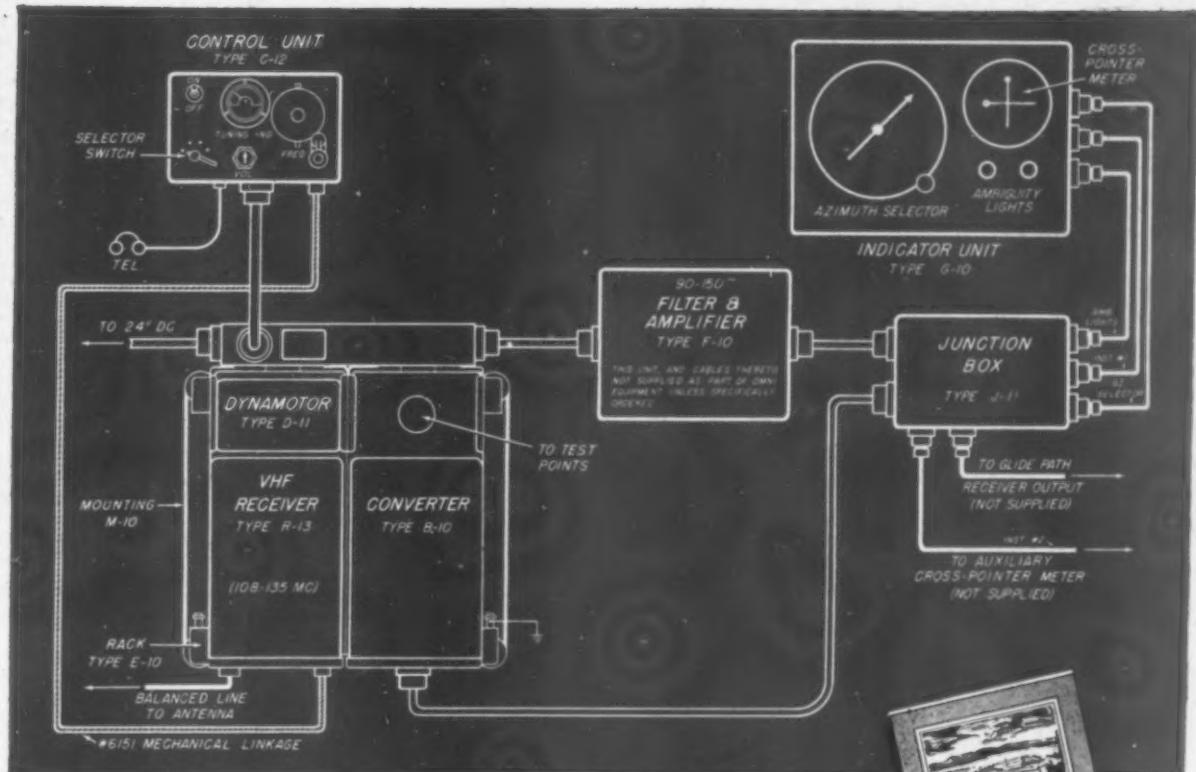
Another serious deficiency is the lack of experienced management, Adams said. Many errors have been made in improper selection of equipment and the acceptance of sub-marginal traffic routes. "Where these routes have been productive of traffic, unnecessarily high costs occasioned by poor equipment and lack of operating know-how, coupled with insufficient funds for operating, ground and starting expenses, have resulted in serious financial conditions." Adams told how one operator pointed with pride to his company's large number of aircraft. Inquiry disclosed, however, that the airline was averaging less than three hours per plane per day.

At the moment, air cargo traffic is lagging in many South American countries. First attention is given to passenger operations. Adams believes that a large cargo business will be opened up by new companies organized specifically for this purpose.

The DC-3 has become the universal "work horse" of Latin American airlines. The surplus price of \$20,000 for a C-47 was enthusiastically received throughout Latin America, Adams said, pointing out that most companies in these countries would hesitate to invest in Martin 202 Consolidated 240 or Fairchild Packet aircraft at from \$200,000 to \$300,000 each.

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Transport Notes

Concession For Sportmen—Mid-Continent Airlines, in an effort to encourage sportsmen to use air transportation, has announced that ten pounds free baggage allowance, in addition to the regular 40 pounds, will be made for visible equipment such as skis, fishing tackle and un-assembled firearms. When equipment is included in the luggage, it will not be exempt. It must be carried separate and apart from other baggage.

Continental Traffic Increase—A total of 22,905 passengers were carried by Continental Air Lines during June, a percentage increase of 82.83 over the same period in 1945. For the first six months of 1946, a 91.19% increase has been recorded over the first six months of last year.

Sets Company Record—More than 4,000,000 plane miles were flown in domestic service by TWA during the month of June. Constellations accounted for 424,942 miles. Flights over TWA international routes boosted the June total to 4,750,000 miles.

Vets In Airline Jobs—More than 25,000 war veterans are currently employed by the nation's airlines, according to the Air Transport Association of America. Former members of the armed forces make up approximately one-third of the number employed in airline work and they are engaged in both flight and ground capacities. An additional 1900 veterans are employed in airline work in Alaska, Canada and the Caribbean area, according to the survey made by ATA.

Contract For Training—After ten years of training its own hostesses, TWA has entered into a contract with the McConnell Airline Stewardess School of Minneapolis, to handle the chore in the future. A Kansas City branch has been established to accommodate TWA students exclusively and the teaching staff has been augmented by three TWA instructors.

Going After Air Cargo—United Air Lines, as part of a campaign to increase air cargo traffic, has issued a folder to prospective shippers and has assigned capable cargo staff members to follow up on every potential customer. The folder lists many of the cargoes recently carried by UAL planes and suggests how the service can be used to advantage by manufacturers, wholesalers and others.

Reorganizes Aircargo Offices—Karl de Blinde, newly appointed European air cargo manager for American Overseas Airlines, is making a tour of New York, Washington, Chicago, Philadelphia and Boston to reorganize the air cargo offices in those international airport cities. A Mexican citizen, de Blinde was regional cargo manager for AA de Mexico, before his AOA appointment.

New Cargo Record—Air freight and express flown by United Air Lines for the first half of 1946, showed an increase of 40% over the same period in 1945. The all time record was set when UAL planes flew approximately, to July 1, 3,530,500 cargo ton miles as against 2,516,640, during the first half of 1945. Reflecting the loss of servicemen's letters since the end of the war, air mail fell off approximately 50% to 5,197,500 ton miles, for the corresponding period.

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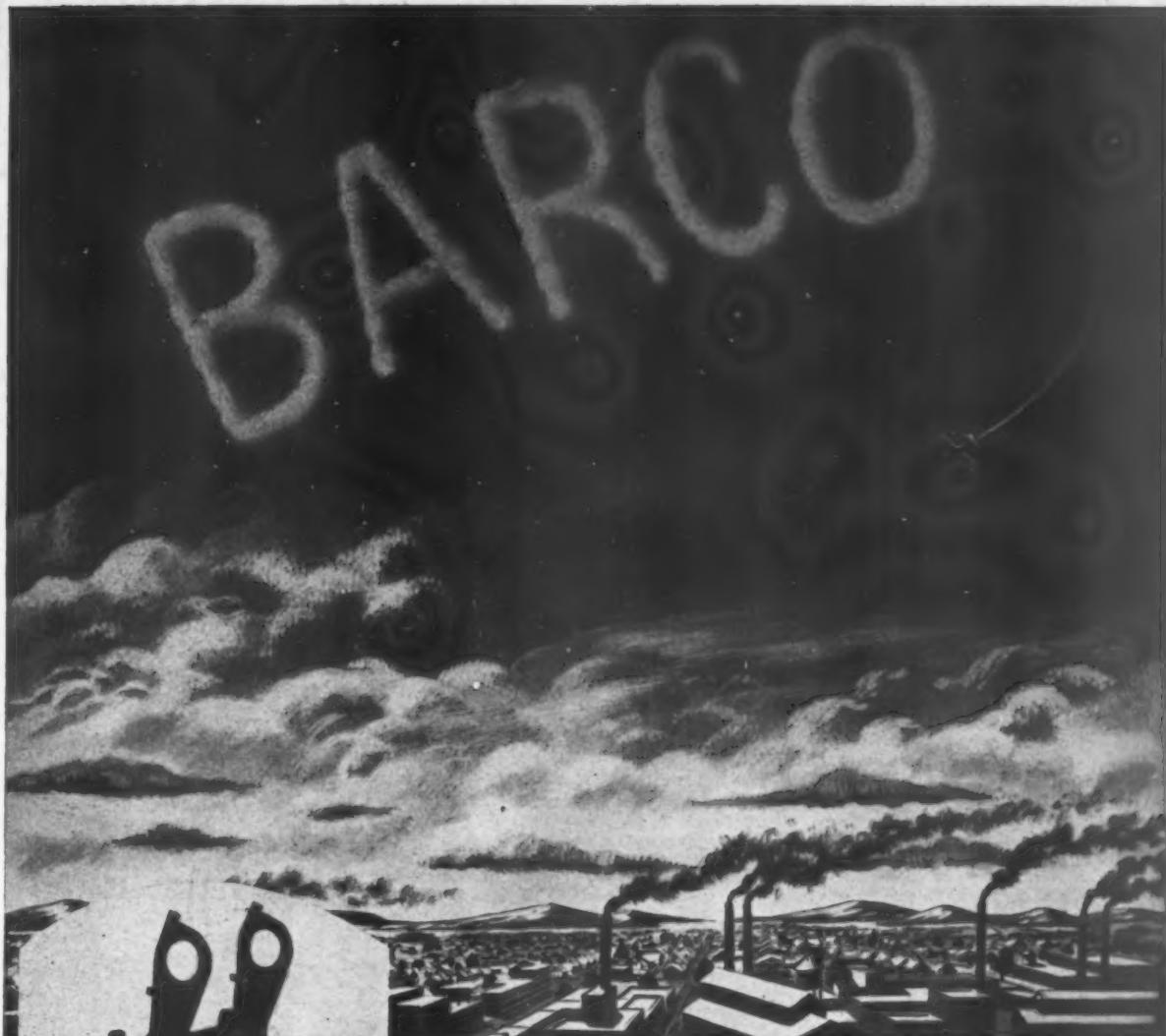
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PAA-Grace Compact Would Afford Panagra U.S. Terminal

Agreement Awaits Approval By Civil Aeronautics Board

By DANIEL S. WENTZ II

LAING aside some of the policy conflicts which have marked their relations in the past, Pan American Airways and W. R. Grace & Co. last fortnight signed a compact designed to give their conjointly owned subsidiary, Pan American-Grace Airways (Panagra) the equivalent of a route to a United States terminal. By means of an agreement and a contract, the latter between Pan American and Panagra, the three companies involved have worked out a plan which envisages the operation of Panagra's planes by Panagra crews under charter to Pan American Airways over the latter's Caribbean routes.

This, in effect, skirts the difficulties which have marked Panagra's efforts to obtain a U. S. terminal in the past, and appears to be a solution mutually acceptable and advantageous to the Pan American and the Grace interests which have been somewhat at cross-purposes in their joint management of Panagra's affairs. The agreement signed between Pan American and W. R. Grace and company, sets up machinery to ensure close cooperation between the two companies in effectuating the PAA-Panagra charter contract.

The contract itself is to run for 99 years, and provides that Panagra planes may continue onward from Miami to New York, Washington and Boston if PAA receives the domestic routes it has applied for. Under this arrangement through flights between Miami and Buenos Aires via the Panagra great circle route which extends down the West coast of South America from the Canal Zone will be made possible, supplementing the New York and Miami to Buenos Aires services. Pan American itself will operate via the East coast of South America. This contract must be approved by CAB.

Obviously, the through services contemplated by the contract represent a step toward meeting future competition by Braniff Airways, at the same time covering the Miami-Balboa gap with a U. S. flag service to forestall possible foreign flag competition on that segment. These competitive threats, coupled with repeated criticism by the Civil Aeronautics Board of what it called the "unhealthy" internal situation in Panagra's management resulting from the conflict of interests between Grace and Pan American, each of whom owns precisely 50 percent of Panagra's stock, probably moved both companies to compose their differences sufficiently to make the through service plan possible. Significantly, the agreements precede by more than six weeks the oral argument in the reopened Latin American Case which will deal with a Miami-Balboa service.

The agreement ratifying the operating contract was signed between Pan American and W. R. Grace & Co., and codifies the procedures and methods to be used in putting the operating contract into effect. It provides rather elaborate insurance that the Pan American directors on

Panagra's Board shall attend all meetings called to implement the joint operating agreement and that they shall not exercise their votes unreasonably to prevent the full fruition of the plan provided CAB approves. The agreement attempts to ensure the PAA directors will "abstain from any action which would cause a deadlock within the said Board of directors with respect" to any action required to put the through-plane charter contract into effect. On matters of general company policy, however, the agreement contains a general paragraph maintaining the status quo in which the directors of either company may block corporate action by Panagra. Observers point out that while the agreement is not in any sense a full solution to the knotty situation which has grown out of the co-equal ownership of Panagra, it at least marks a step, and a rather substantial one, in the direction of more amicable relations between Panagra's co-owners.

Pan American agrees not to transfer or abandon any of its certificates for routes over which Panagra will operate under the contract without Panagra's written consent, and has also not to block an outright route application by Panagra itself if any of the PAA certificates for routes on which Panagra is operating are cancelled by CAB.

An interesting portion of the agreement touches on the status of the lengthy and complex litigation in the so-called Panagra Terminal Case, which is now on the docket of the Supreme Court of the United States for its Fall Term. Under the agreement, both Grace and Pan American will petition both the Supreme Court and the Civil Aeronautics Board to delay any further action on those portions of the Panagra Terminal Case now before the Board and the Court, and will ask for outright dismissal of those proceedings if CAB approves the joint operating agreement. The question of dismissal of the Supreme Court proceeding, however, involves a third party, Eastern Air Lines, whose petition for certiorari was one of those granted by the Supreme Court. Eastern, of course, will have a voice in any requests for dismissal filed by Grace or Pan American in the Supreme Court. In another paragraph, Grace and Pan American make specific provision for the arbitration of any disputes which may arise respecting the construction or operation of the agreement, which supersedes an earlier agreement between the same parties dating from Feb. 14, 1939. The new agreement, dated July 30, was signed by J. P. Grace, Jr., President of W. R. Grace & Co., and by J. T. Tripp for Pan American.

May Triple Airline Mileage—CAB Chairman, James M. Landis has announced that he does not feel that the issue of surface carriers entering the air transport industry is of world-shaking importance. In a recent statement, he said he was more concerned with non-scheduled, air cargo and feeder line problems, along with the development of our national airways. He expressed the belief that the present airline mileage of 77,000 miles may be tripled soon after the industry becomes more stabilized.

Western Air Asks New Data Be Heard In Hawaiian Case

The existing record in the Hawaiian case is "stale" and should not be used as the basis for selecting a carrier to operate between Los Angeles and Honolulu, Western Air Lines declared last fortnight in a petition asking the Civil Aeronautics Board to hold a rehearing in addition to the reargument and reconsideration it has already ordered for the Hawaiian Case. Western claims that the material put in the docket during a hearing in September, 1944, is no longer an accurate picture of the air transport situation between the mainland and Hawaii, and should definitely be supplemented to show the many changes and important considerations which have occurred since that time. The reopened portion on which Western has asked rehearing includes only the selection of an airline to operate between Los Angeles and Honolulu.

Western maintains that it is the best fitted of the remaining airline applicants to serve the Los Angeles-Hawaii traffic because it is the only line which would be in an unbiased competitive position with respect to Hawaii-bound traffic flown to Los Angeles by Transcontinental & Western Air and American Airlines. Hawaiian Airlines, WAL stated, would be prejudiced in favor of TWA because of the latter company's ownership of 20 percent of the Hawaiian carrier's stock. Western also stressed the claim that the location of its major maintenance base as Los Angeles placed it in a preferred position which would enable it, of all the applicants for the route, to secure optimum four-engined equipment utilization both on the 2400-mile overwater flights to Honolulu and on its domestic routes.

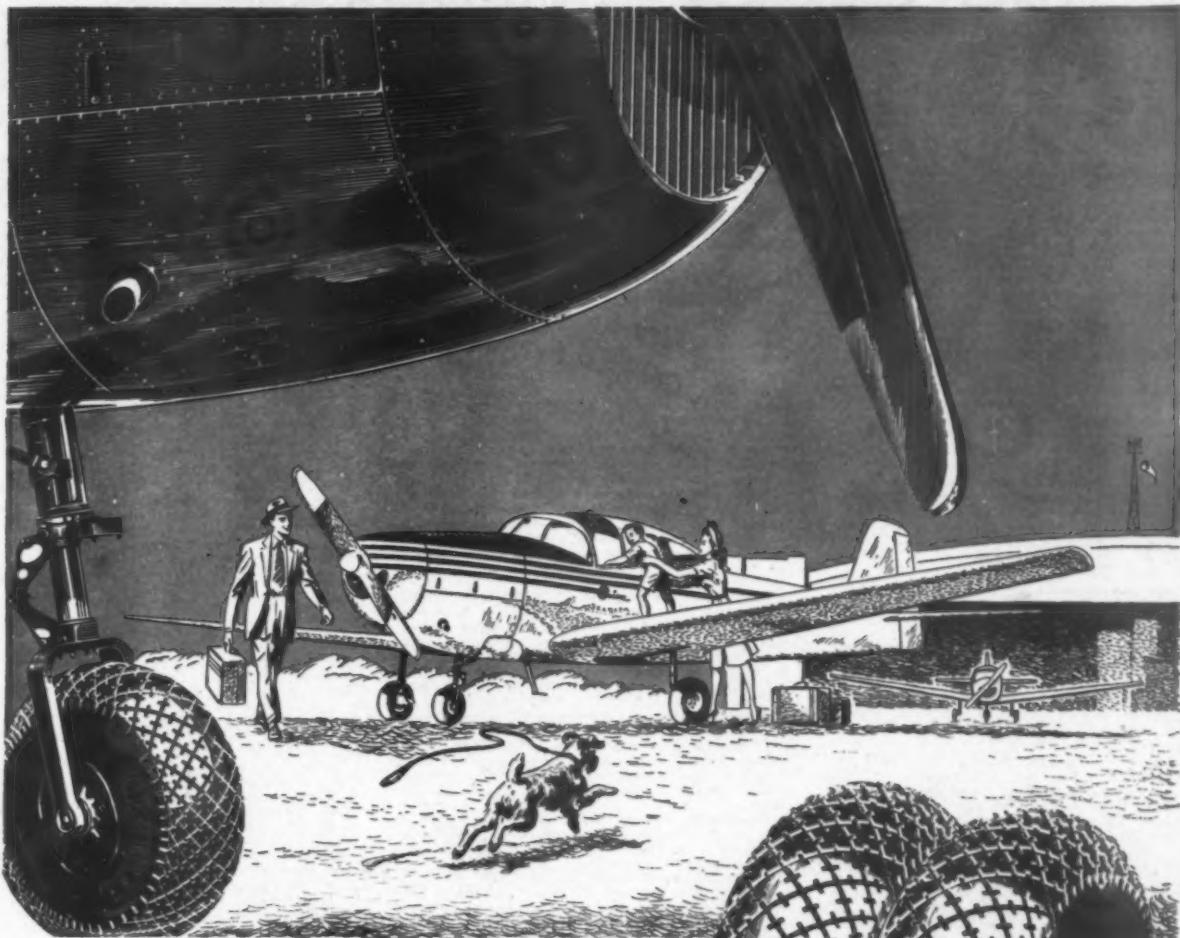
Much of Western's petition was directed to showing that the grant of the Los Angeles-Honolulu route to Hawaiian Airlines would mean a drastic revision of the latter's character from an inter-island "feederline" to a large trunkline operator, and that Hawaiian, if granted the route, would be subject to the control of TWA and the so-called "Big Five" economic interests in Hawaii.

In addition, the company maintained in its request for rehearing that United, if it were given Los Angeles-Honolulu in addition to San Francisco-Honolulu, would tend to stress the development of traffic through San Francisco rather than through Los Angeles, to the latter city's detriment.

Warned on Alaska Flights

U. S. pilots planning to fly to Alaska via Canada over the Northwest Staging Route have been warned by the Civil Aeronautics Administration to familiarize themselves with and adhere to appropriate Canadian regulations. Violations of these regulations, according to W. P. Plett, CAA regional administrator for Alaska, have made necessary several alerts by the RCAF which have cost the lives of search pilots or loss of their aircraft. Continued violations, Plett asserted, might cause the Canadian government to require posting a bond by everyone flying the route.

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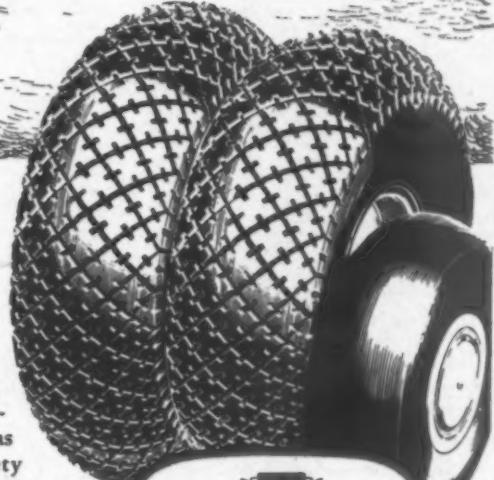


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CAB Proceedings

(A Summary of Applications Filed, Orders Issued, and Future Actions of the Civil Aeronautics Board.)

Applications:

Aeronaves de Mexico, S. A., Balderas 44, Mexico City, for a temporary foreign air carrier permit authorizing transportation of passengers, property, and mail between Hermosillo, Mexico, and Nogales, Ariz., until such time as the airport at Nogales, Sonora, is available for use. (Docket 2385)

Airnews, Inc., Avenue E and Third St., San Antonio, Tex., for a permanent or temporary certificate authorizing mail and property transportation between San Antonio and Corpus Christi, Tex., and over a circle route out of San Antonio, with combined mileage of 737 miles. (Docket 2387)

Air Travel, Inc., 291 Geary St., San Francisco, Calif., for a permanent, temporary, limited or restricted certificate authorizing scheduled transportation of property between co-terminals San Francisco-Los Angeles and Boston, via Oklahoma City, Chicago, Philadelphia, New York, and Newark, with estimated mileage of 3,407. (Docket 2388)

Air Travel, Inc., 291 Geary St., San Francisco, Calif., for a permanent, temporary, limited or restricted certificate authorizing non-scheduled property service between the general areas of San Francisco and Los Angeles, and the eastern areas of Chicago, Philadelphia, New York, and Boston. (Docket 2389)

Charles H. Bobb Co., Grand Central Airport, Glendale, Calif., for a permanent, temporary, limited or restricted certificate authorizing non-scheduled air transportation of persons and property between Glendale and Los Angeles, via various intermediate points within the U. S., Canada, Mexico, and Alaska. (Docket 2376)

Chicago and Southern Air Lines for a permanent certificate authorizing scheduled passenger, property, and mail service between Detroit and Washington, via (a) Cleveland, and (b) Toledo and Cleveland, and beyond Cleveland to Akron, Canton, Youngstown, and Pittsburgh. (Docket 2394)

Compania Mexicana de Aviacion, S. A., for amendment to its foreign air carrier permit authorizing service between Los Angeles and Mexico City to remove all limitations regarding frequency of service. (Docket 2383)

Continental Sky-Van, Inc., Oakland Municipal Airport, Oakland, Calif., for a permanent or temporary certificate authorizing passenger and property service over four routes with total estimated mileage of 5,248: (a) between San Francisco-Oakland and New York-Newark; (b) between Omaha and Chicago; (c) between Chicago and New York-Newark; and (c) along circle route out of San Francisco-Oakland. (Docket 2395)

Eastern Air Lines for amendment to certificates for Routes 5 and 6 to redesignate Raleigh as Raleigh-Durham; for amendment of Route 5 certificate to redesignate Greensboro as Greensboro-High Point, and Beaumont as Beaumont-Port Arthur. (Docket 2398)

Fast Air Service Transport, Inc., 110 Market St., San Francisco, Calif., for permanent or temporary certificate authorizing indirect air service as a freight forwarder along the following routes: San Francisco Bay Area-New York; St. Louis-Chicago; St. Louis-San Francisco Bay Area; New York-Los Angeles; Chicago-Detroit-New York; Los Angeles-Seattle/Vancouver. (Docket 2381)

Fast Air Service Transport, Inc., for exemption order authorizing indirect air service as a freight forwarder, pending decision in Docket 2381 above. (Docket 2382)

Flamingo Air Service, Inc., Avon Park, Fla., for a permanent or temporary certificate authorizing scheduled transportation of property over the following routes, or in the alternative, scheduled property and mail service between the various areas involved: (a) New York-Newark to Miami-Avon Park; (b) New York-Newark to Boston; (c) New York-Newark to New Orleans; (d) New York-Newark to Buffalo; (e) New York-Newark to Chicago; (f) Detroit to Miami-Avon Park; (g) Miami-Avon Park to New Orleans; (h) New Orleans to Chicago; (i) New York-Newark to Eastport, Me., and (j) Miami-Avon Park to Chicago, all via intermediate points. (Docket 2402)

NATS Air Transportation Service, Oakland Municipal Airport, Oakland, Calif., for certificate authorizing scheduled passenger, property, and mail service over following routes: (a) Oakland, Calif., to Newark, N. J., via intermediate points; (b) Los Angeles to Juneau, Alaska, via intermediate points. (Docket 2401)

Orlando Airlines, Orlando, Fla., for approval under Section 408 of any new control or relationships arising by virtue of transfer of certificate of Thomas E. Gordon, d.b.a. Orlando Airlines, to Florida Airways, Inc., or in the alternative, for dismissal of application for want of jurisdiction. (Docket 2399)

Pennsylvania-Central Airlines Corp. for certificate amendment to include Toledo as intermediate point between Cleveland and Detroit on Route 14. (Docket 2380)

Leonardo H. Rennewanz, 1110 Linden Lane, Detroit Lakes, Minn., for permanent or temporary certificate authorizing scheduled transportation of passengers, property, and mail between International Falls, Minn., and Fargo, N. D., via intermediate points, with an estimated mileage of 290. (Docket 2393)

Resort Airlines, Inc., Knollwood Airport, Southern Pines, N. C., for a permanent or temporary certificate authorizing passenger, property, and mail service on a seasonal limited trip basis over following routes with total mileage of 4,147: (a) Charlotte, N. C., to Westchester County, N. Y., via Winston-Salem, N. C., Washington, D. C., and Wilmington, Del.; (b) Charlotte to Westchester County or Charlotte to Saranac Lake, N. Y., via Pinehurst-Southern Pines, N. C., Washington, and Wilmington; (c) Charlotte to Miami, via Columbia, S. C., Savannah, Ga., Jacksonville, Daytona Beach, and West Palm Beach, Fla.; (d) Westchester County, N. Y., to West Yellowstone Airport, Mont., via Cleveland, Chicago, Des Moines, Cheyenne, and Salt Lake City. (Docket 2377)

Transoceanic Air Lines, Oakland Municipal Airport, Oakland, Calif., for permanent or temporary certificate authorizing non-scheduled passenger and property service between any and all points in the U. S. and between points in continental U. S. and points in Alaska, Mexico, Hawaiian Islands, Philippine Islands, China, India, Afghanistan, Australia, New Zealand, Japan; and in any and all the countries in Central and South America. (Docket 2379)

Trans-Pacific Airlines, Ltd., 1128 Smith St., Honolulu, T. H., for permanent, temporary, limited or restricted certificate authorizing scheduled passenger, property, and mail service between Honolulu and nearby islands, with estimated route mileage of 375. (Docket 2390)

Trans-Pacific Airlines, Ltd., 1128 Smith St., Honolulu, T. H., for permanent, temporary, limited or restricted certificate authorizing scheduled transportation of passengers, property, and mail by helicopter and/or other small plane types comprising pick-up and delivery service between Honolulu and other islands, and among communities on several islands in the Territory of Hawaii. (Docket 2391)

Trans-Pacific Airlines, Ltd., 1128 Smith St., Honolulu, T. H., for permanent, temporary, limited or restricted certificate authorizing non-scheduled transportation of passengers, property, and mail between Honolulu and general areas of other islands in the Territory of Hawaii. (Docket 2392)

United Air Lines, Inc., for permanent or temporary certificate authorizing scheduled air transportation of mail by helicopters over five routes leading from Chicago Municipal Airport and totaling 211 miles. (Docket 2384)

United States Aviation Corp., Municipal Airport, Long Beach, Calif., for permanent or temporary certificate authorizing air transportation as a freight forwarder. (Docket 2403)

United States Aviation Corp., Municipal Airport, Long Beach, Calif., for permanent or temporary certificate authorizing air transportation as a travel agent and passenger consolidator, using facilities of non-scheduled air carriers. (Docket 2404)

Ray Wilson, Inc., Stapleton Airfield, Denver, Colo., for amendment to the temporary certificate for Route 79 issued in the name of Ray Wilson, Inc., to reflect change in name to Monarch Air Lines, Inc. (Docket 2386)

Calendar:

Aug. 15—Exhibits in the Los Angeles Metropolitan Area Helicopter Service Case due. (Docket 896 et al.)
Aug. 16—Exchange of exhibits in the Transcontinental & Western Air Italian Agreement Case. (Docket 2337).
Aug. 26—Rebuttal exhibits in the TWA Italian Agreement Case due. (Docket 2337).
Aug. 26—Oral argument in the Southeastern States Case. (Docket 501 et al.), 10 a. m., e.s.t., Room 5044, Commerce Building.
Aug. 26—Briefs due in the Boston-New York-Atlanta-New Orleans Case. (Docket 730 et al.)
Aug. 27—Prehearing conference on the route application of Big Horn Airways, Sheridan, Wyo., in Docket 1001. Foyer, Commerce Department Auditorium, Examiner Richard A. Welsh.
Aug. 30—Exchange of exhibits in the Air Freight Case. (Docket 810 et al.)

Aug. 31—Deadline for rebuttal exhibits in the Los Angeles Metropolitan Area Helicopter Service Case. (Docket 896 et al.)

Sept. 1—Date for exchange of exhibits in the Washington-Detroit Case. (Docket 679 et al.)

Sept. 4—Hearing in the Transcontinental & Western Air Italian Agreement Case. (Docket 2337). Examiner James S. Keith. Tentative.

Sept. 6—Prehearing conference on the route application of Colorado Airways, Durango, Colo., in Docket 1079. Foyer, Commerce Department Auditorium, Examiner Joseph L. Fitzmaurice.

Sept. 7—Hearing on applications proposing mail and property service by helicopter in the Los Angeles area. (Docket 896 et al.) Examiner Ferdinand D. Moran. Postponed from July 10 at the request of the Post Office Department. Tentative.

Sept. 9—Date for exchange of exhibits in the KLM-Royal Dutch Air Lines Amsterdam-New York-Curaçao Foreign Air Carrier Permit Case. (Docket 2324).

Sept. 9—Reargument of the Los Angeles-Honolulu portion of the Hawaiian Case. (Docket 851 et al.) 10 a. m., e.s.t., Room 5044, Commerce Building.

Sept. 10—Date for exchange of exhibits in Pan American Airways' U. S. Domestic Routes Case. (Docket 1803).

Sept. 15—Rebuttal exhibits in the Washington-Detroit Case due. (Docket 679 et al.)

Sept. 16—Reargument of the reopened portions of the Latin American Case. (Docket 525 et al.) 10 a. m., e.s.t., Room 5044, Commerce Building.

Sept. 16—Deadline for exchange of exhibits in the Air Freight Case. (Docket 810 et al.)

Sept. 16—Rebuttal exhibits due in KLM Royal Dutch Air Lines foreign air carrier permit case. (Docket 2324).

Sept. 19—Hearing on application of KLM Royal Dutch Air Lines for Amsterdam-New York-Willemstad, Curacao, N. W. I., foreign air carrier permit. (Docket 2324). Examiner Barron Fredricks.

Sept. 23—Tentative date for hearing in the Washington-Detroit Case. (Docket 679 et al.)

Sept. 28—Rebuttal exhibits in the Air Freight Case due. (Docket 810 et al.).

Sept. 30—Exchange of initial exhibits on application of Continental Air Lines for permanent certification of its Hobbs, N. M.-San Antonio, Tex., route. (Docket 2087).

Oct. 14—Rebuttal exhibits in the Pan American Airways Domestic Routes Case due. (Docket 1803).

Oct. 14—Hearing the Air Freight Case. (Docket 810 et al.) Tentative. Examiners R. Vernon Radcliffe and William F. Cusick.

Oct. 21—Rebuttal exhibits due on application of Continental Air Lines for permanent certification of its Hobbs, N. M.-San Antonio, Tex., route (Docket 2087).

Oct. 28—Hearing on application of Continental Air Lines for permanent certification of its Hobbs, N. M.-San Antonio, Tex., route. (Docket 2087). Examiner Frank A. Law, Jr.

Oct. 29—Hearing on Pan American Airways' application for domestic U. S. routes. (Docket 1803).

Orders:

4853—Dismissing the application of Continental Air Lines in Docket 1097 at the carrier's request.

4854—Permitting the Chamber of Commerce of the City of Birmingham, Ala., to intervene in the Kansas City-Memphis-Florida Case. (Docket 1051 et al.)

4855—Authorizing Eastern Air Lines and the City of Houston, Texas, to intervene in the Essar, Inc., Certificate Amendment Case. (Docket 2057).

4856—Denying a petition of the Columbus Chamber of Commerce and the City of Columbus, Ohio, for leave to intervene in the Boston-New York-Atlanta-New Orleans Case. (Docket 730 et al.)

4860—Authorizing the Cities of Atlanta, Ga., and Charleston, W. Va., the County Court of Kanawha County, W. Va., and the Charleston Chamber of Commerce to intervene in the Boston-New York-Atlanta-New Orleans Case. (Docket 730 et al.)

4861—Granting Trans-Canada Air Lines foreign air carrier permits authorizing scheduled mail, passenger and express operations between Halifax, Nova Scotia, and Boston; between Toronto, Ont., and Cleveland, Ohio; between Toronto and Chicago; between Port Arthur, Ont., and Duluth, Minn.; and between Victoria, British Columbia, and Seattle. (Docket 2253 et al.)

4862—Authorizing Eastern Air Lines to operate non-stop between Baton Rouge, La., and Beaumont, Texas, on Route 5.

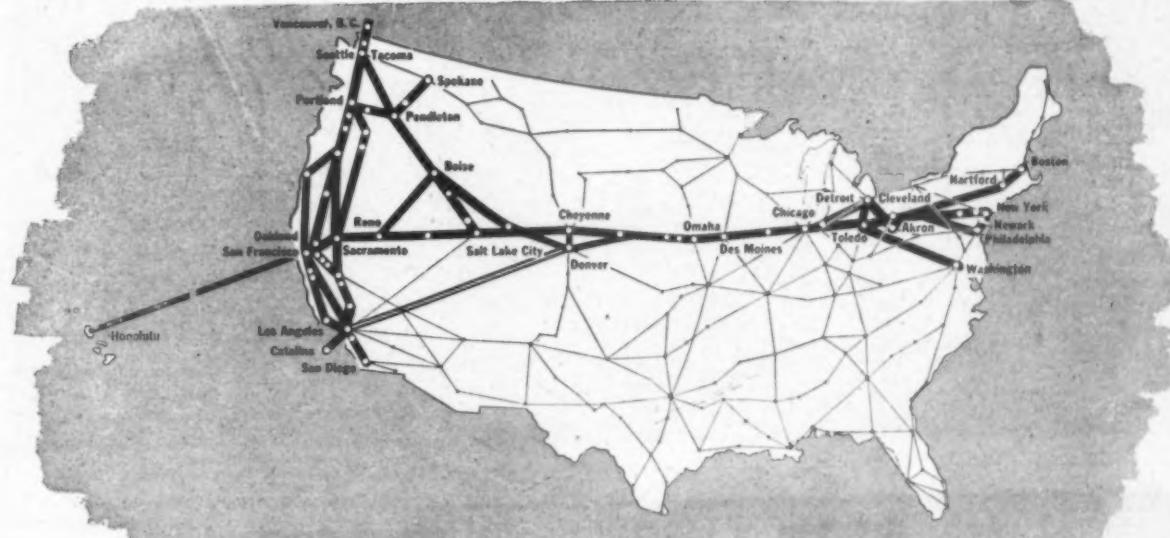
4864—Rescinding a Board order of Feb. 23, 1942, to release Eastern Air Lines and Pennsylvania-Central Airlines from the obligation of filing monthly reports on traffic to and from Huntsville, Ala. (Dockets 709 and 423).

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4845—Denying motions of Eastern Air Lines which had asked that the Board revoke its order consolidating Delta Air Lines' route consolidation application in Docket 2288 with Eastern's consolidation application in Docket 1971 for hearing, and requesting the CAB revoke its order authorizing Chicago and Southern Air Lines to intervene in the consolidated proceeding. (Dockets 1971 and 2288).

4846—Permitting National Airlines and Pennsylvania-Central Airlines to intervene in the Eastern Air Lines-Delta Air Lines Consolidated Route Consolidation Case. (Dockets 1971 and 2288).

4847—Authorizing the Division of Aeronautics of the Public Service Commission of the State of North Dakota to intervene in the Chicago-Seattle Case. (Docket 1602 et al.).

4848—Permitting the City of Nashville and the Nashville Chamber of Commerce to intervene in the Boston-New York-Atlanta-New Orleans Case. (Docket 730 et al.).

4849—Authorizing Transcontinental & Western Air to intervene in the Chicago-Seattle Case. (Docket 1602 et al.).

4850—Consolidating, for purposes of argument and decision, the foreign air carrier permit application of Lineas Aereas TACA de Venezuela, C. A. (Docket 2180); Lineas Aeropostales Venezolana, (Docket 2281); and Aerovias Venezolanas, S. A., (Docket 2318).

4851—Denying a motion of Public Counsel for consolidation of the Arizona Airways-Transcontinental & Western Air Route 38 Purchase Case (Docket 2005) with the Arizona-New Mexico Case (Docket 968 et al.) for purposes of decision.

4852—Denying a petition of Eastern Air Lines for leave to intervene in the Braniff Airways' Routes 9, 15 and 50 Consolidation Case. (Docket 1154 et al.).

4853—Consolidating United Air Lines' Detroit-New York non-stop application in Docket 2216 with its Detroit-Allentown non-stop application in Docket 2277 for hearing and decision.

4854—Authorizing American Airlines and Northwest Airlines to intervene in the United Air Lines Detroit-New York Detroit-Allentown Non-stop Case. (Dockets 2216 and 2277).

4855—Issuing foreign air carrier permits to Air France to authorize service between (1) France, an intermediate point in Eire, an intermediate point in Newfoundland, and the co-terminals Boston, New York and Washington; (2) between France, an intermediate point in Eire, an intermediate point in Newfoundland, Montreal and Chicago; (3) between Martinique and Haiti via intermediate points in Guadeloupe, Antigua, and St. Martin, the intermediate point San Juan, P. R., and an intermediate point in the Dominican Republic; and (4) between a terminal point in Indo-China and Manila, P. I., via intermediate points in China and Hong Kong. (Docket 4875).

4856—Denying a petition of Duluth Airlines, Inc., for postponement of decision on certain applications in the North Central Case (Docket 415 et al.), pending decision on Duluth's application, Docket 1602, heard in the Chicago-Seattle Case.

4857—Authorizing American Airlines to fly non-stop between Los Angeles and Tulsa, Los Angeles and Oklahoma City, Tulsa and Phoenix, Tulsa and Tucson, Oklahoma City and Phoenix and Oklahoma City and Tucson on Route 4; between Chicago and Tulsa and Chicago and Oklahoma City on Route 30; and between New York and Tulsa, New York and Oklahoma City, Washington and Tulsa and Washington and Oklahoma City on Route 23 subject to the condition that operational stops may not be made at any off-line point except for emergency of safety reasons. (Docket 1895).

4858—Permitting Eastern Air Lines to operate non-stop between Columbus, Ga., and Mobile, Ala.; between Columbus and New Orleans; and between Brownsville and Houston, Tex., on Route 5.

4859—Instituting on the Board's own initiative an investigation into the Agreement between the Railway Express Agency, Inc., and Northwest Airlines relating to the operation of an air express business. (Agreement C.A.B. No. 617—Docket 2340).

4860—Authorizing Pennsylvania-Central Airlines to serve Sault Ste. Marie, Mich., through the use of the Kinross Army Air Field, subject to the permission of the War Department.

4861—Authorizing Pennsylvania-Central Airlines to serve Detroit, Mich., through the use of the Willow Run Airport.

4862—Authorizing United Air Lines to serve Spokane, Wash., through the use of Geiger Field, subject to the permission of the War Department.

4863—Granting a motion of Air Commuting, Inc., for severance of its application in Docket 1642 from the Middle Atlantic Area Case (Docket 674 et al.) and denying a similar motion filed by Island Air Ferries, Inc., requesting severance of its application in Docket 2029.

4864—Modifying a Board order of May 27 approving interlocking relationships resulting from the holding by Leigh R. Powell, Jr., of an office and/or directorship in the Railway Express Agency and offices and/or directorships in a number of railroad, steamship and terminal companies. (Docket 2283).

4865—Revoking an exemption order of July 20, 1942, to require Pan American Airways to render service on its Pacific route between Honolulu, Hawaii, and Auckland, N. Z., via Canton Island, Suva, British Crown Colony of Fiji, and Noumea, New Caledonia.

4866—Permitting Texas Air Lines, Inc., to intervene in the Texas-Oklahoma Case (Docket 337 et al.) but denying the company's petition for the consolidation of its application in Docket 2240 with the Texas-Oklahoma Case.

4867—Authorizing Western Air Lines to fly non-stop between West Yellowstone, Mont., and Oden, Utah, and between Salt Lake City and West Yellowstone on its Route 19.

4868—Authorizing Pan American Airways temporarily to suspend service between Natal, Brasil, and points in Africa on its Route FAM-18 upon a showing by PAA that the temporary suspension of the segment would release personnel and equipment which could be utilized in the public interest on other segments of its route.

4869—Denying a motion of Robinson Aviation, Inc., for severance of its application in Docket 1886 from the Middle Atlantic Area Case with which the application had previously been consolidated. (Docket 674 et al.).

4870—Reissuing the temporary certificate of convenience and necessity for Route 64 held by Essair, Inc., to reflect a change in the carrier's corporate name to Pioneer Air Lines, Inc.

4871—Authorizing the City of Charlotte, N. C., to intervene in the Boston-New York-Atlanta-New Orleans Case (Docket 730 et al.) but denying the city's petition for postponement of the hearing in that proceeding.

4872—Approving equipment lease agreements entered into between Western Air Lines and Inland Air Lines. (Agreements C. A. B. Nos. 353, 354, 355 and 356—Docket 1936).

4873—Permitting Ponca City, Okla., and Sooner Airlines, Inc., to intervene in the Texas-Oklahoma Case. (Docket 337 et al.).

4874—Denying a petition of Gulf Airlines, Inc., for reopening the record in the Texas-Oklahoma Case for the receipt of additional evidence. (Docket 337 et al.).

4875—Approving an agreement between Pennsylvania-Central, American, American Overseas, Braniff, Chicago and Southern, Colonial, Continental, Delta, Eastern, Essair, Inc. (now Pioneer Air Lines, Inc.), Inland, Mid-Continent, National, Northwest, Northeast, Pan American, TWA and Western relating to furnishing materials and supplies to off-line points. (Agreement C. A. B. No. 483).

4876—Denying a petition of Lineas Aeras TACA de Venezuela, C. A., for permission to intervene in the foreign air carrier permit proceeding on the application of Aerovias Venezolanas, S. A., in Docket 2318.

4877—Authorizing Air France to serve New York, N. Y., through the use of Le Guardia Airport.

4878—Certifying E. W. Wigging Airways, Inc., for a series of local routes in New England; amending the existing certificates of Eastern Air Lines, Colonial Airlines, and Northeast Airlines, and denying other applications or portions of applications in the New England Case. (Docket 399 et al.).

4879—Permitting the Cities of Austin and Brownsville, Texas, Enid and Bartlesville, Okla., and Texarkana, Ark./Tex., to intervene in the Texas-Oklahoma Case. (Docket 337 et al.).

4880—Dismissing from the Arizona-New Mexico Case (Docket 968 et al.) the application of the Federal Airlines Company in Docket 2222 at the applicant's request.

4881—Permitting Trans-Canada Air Lines to serve Chicago through the use of the Chicago Municipal Airport.

4882—Authorizing Pan American Airways to serve Sao Paulo, Brazil, on its Route FAM-5, through the use of Cumbica Field, beginning about July 1.

4883—Denying an application for approval of interlocking relationships filed conjointly by Braniff Airways, Inc., and C. G. Adams, at the applicant's request. (Docket 1362).

4884—Authorizing Håkon Christensen, d.b.a., Christensen Air Service, to operate regular or scheduled mail, passenger, and property service between Anchorage and Seward, Alaska, pending action on his application for a permanent or temporary certificate to authorize such service. (Docket 2036).

4885—Requiring Alaska Airlines to resume scheduled passenger and property service over its certified route between Anchorage and Seward, Alaska.

4886—Requiring Pacific Northern Airlines (formerly Woodley Airways) to resume scheduled passenger and property service over its certified route between Anchorage and Seward, Alaska.

4887—Authorizing the Raleigh, N. C., Chamber of Commerce to intervene in the Southeastern States Case (Docket 501 et al.).

4888—Permitting the City of Pensacola, Fla., to intervene in the Southeastern States Case. (Docket 501 et al.).

4889—Rescinding a Board order of June 23, 1942, under which service on Catalina Air Transport's route between Avalon, Santa Catalina Island, Calif., and Los Angeles via Wilmington-Long Beach had been temporarily suspended.

4890—Authorizing United Air Lines, operating on behalf of Catalina Air Transport, to fly non-stop between Avalon, Santa Catalina Island, and Los Angeles, Calif.

4891—Denying a motion of Colonial Airlines which had requested dismissal of Pennsylvania-Central Airlines application for CAB approval of its proposed acquisition of Northeast Airlines, on the ground that the merger agreement has ceased to be binding on either party since June 1, 1946. (Docket 2168).

4892—Authorizing Transcontinental & Western Air, Inc., by temporary exemption order to expire Dec. 31, 1946, to serve Madrid, Spain, as intermediate point on its route from Portugal to Egypt via points in Algeria, Tunisia and Libya. (Docket 2311).

4893—Authorizing American Overseas Airlines to serve Boston, Mass., through the use of the Logan International Airport.

4894—Authorizing Western Air Lines to serve Jackson, Wyoming, on its Route 19 through the use of the Jackson Municipal Airport.

4895—Authorizing United Air Lines, on behalf of and with the consent of Catalina Air Transport, to serve Los Angeles, Calif., through the use of the Los Angeles Airport.

4896—Permitting the City of Hagerstown, Maryland, to intervene in the Southeastern States Case. (Docket 501 et al.).

4897—Dismissing the application of Grant W. Madsen in Dockets 2172 and 2173 at the applicant's request.

4898—Consolidating the applications of Southern Arizona Airways, Inc., Docket 2335 and American Airlines, Inc., Docket 2342 with the Arizona-New Mexico Case (Docket 968 et al.); dismissing the application of Mrs. T. W. Lanier, Docket 1783 at the applicant's request; and authorizing Eastern Air Lines to intervene in the proceeding.

4899—Certifying United Air Lines for a San Francisco-Honolulu route, and denying the applications of other parties in the Hawaiian Case. (Docket 851 et al.).

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To Determine Role of Railway Express Co. in Air Freight Business

A Civil Aeronautics Board proceeding which will eventually determine whether the Railway Express Agency may enter the air freight business in addition to the air express operations it already performs on a vast scale, got underway last fortnight with a prehearing conference before CAB Examiner F. Merritt Ruhlen. The conference was actually called to discuss the issues to be tried in CAB's investigation of the proposed air freight contract between REA and Northwest Airlines, but took on the atmosphere of a sort of informal oral argument as lawyers representing REA, Northwest American Airlines (an intervenor), Public Counsel and the Examiner became tangled in involved legal discussions.

H. S. Marx, REA's attorney, took the position that air freight activities were wholly within the scope of REA's operations as authorized by a CAB exemption order dating from March 13, 1931. The agreement with Northwest, said Marx, should be approved because it falls within the scope of this exemption order and also because it is definitely in the public interest. Railway Express filed a separate petition asking for a broader restatement of its exemption order or for a certificate of convenience and necessity if CAB should find that the exemption is too narrow to permit air freight as well as air express.

The examiner, however, ruled that the questions of a broadened exemption or of a certificate for REA could not properly be considered in an investigation of the REA-NWA contract. Public Counsel James Highsaw declared that a separate proceeding would be necessary to take up these problems.

C. Edward Leisure, attorney for Northwest, stated that his company was anxious to begin air freight operations in collaboration with Railway Express as soon as possible, and hoped for an early de-

termination of the legal issues raised by the contract. He stated that Northwest had no position with respect to REA's legal status under the Civil Aeronautics Act.

American Airlines' attorney Howard C. Westwood, stated that in AAL's view, REA should be limited to the air express activities authorized by its exemption order, which he asserted was not broad enough to permit air freight operations as well.

By the examiners ruling, the only issues to be tried in this case are whether REA's exemption order is broad enough to allow it to enter the air freight field, and, if it is found that the exemption does permit such activities, whether its contract with Northwest is adverse to the public interest. Ruhlen suggested trying these two issues in sequence, so that, should the Board make an initial finding that the exemption order confined REA's operations to air express only, the second question would be obviated. Marx, however, insisted that both be determined simultaneously, and stated that he wished to produce evidence showing the entire scope of REA's history and its air express activities.

This caused Public Counsel Highsaw to request an indefinite continuance of the case because CAB's economic staff will be unable to make a thorough study of the REA-NWA contract for some time because of its heavy burden of current work. Ruhlen stated that he would rule on Highsaw's request in his prehearing conference report. No further procedural dates were set at the conference.

Route Consolidation To Eliminate Delays

Amendment of Northwest Airlines' certificates to permit consolidation of Routes 3, 45, and 69 into one transcontinental route to be known as Route 3, was announced July 31 by the Civil Aeronautics Board. The consolidated route extends from Seattle, Wash., and Portland, Ore., to New York City, via intermediate

points in Washington, Montana, North Dakota, Wisconsin, Michigan, and New York. The Board's order was approved by President Truman on July 29. Presidential approval was required because of the international segment of Route 3 extending from Fargo, N. D., via Grand Forks to Winnipeg, Canada.

In its opinion, CAB provided that the portion of Route 3 from Grand Forks to Winnipeg be separated from the newly consolidated Route 3 and be designated as Route 3-F. In this manner, it was pointed out, Northwest's international air services will be separated from its domestic operations, thus facilitating future changes in the carrier's domestic route pattern.

Through service between Butte, Mont., and Portland, Ore., was also authorized by CAB, enabling the carrier to provide more direct and shorter service connecting Portland with eastern points on its route.

The Board said that consolidation of Northwest's routes makes possible through service from and to various points on new Route 3, thus eliminating delays at junction points of the previous separate routes.

Steamship Firm Seeks Temporary Air Certificate

Waterman Steamship Corp. has applied for a temporary certificate covering passenger and property service between New Orleans and San Juan, P. R. (Docket 2405). Waterman, whose application for a permanent certificate on this route was denied in the Latin America route decision, pointed out that Chicago & Southern Air Lines, which was awarded a New Orleans-Houston to San Juan certificate, "can make no prediction either with respect to the time within which operations will commence along these new Caribbean routes or with respect to the time when operation over such routes will be profitable." To expedite action on the new application, Waterman has requested that the testimony of witnesses be heard without exhibits being required, and that a hearing and argument be held by the Board without an examiner as intermediary.

SUMMARY OF U. S. DOMESTIC AIR TRANSPORT OPERATIONS FOR May, 1946
Compiled by American Aviation Publications from Official C.A.B. Data.

TRAFFIC STATISTICS

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER-MILES	AVAILABLE SEAT-MILES	PASSENGERS LOAD FACTOR	MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES	% TRAFFIC	AVAILABLE TON-MILES FLOWN	% AVAILABLE TON-MILES FLOWN	REVENUE FLAME-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED		
All American	...	...	...	...	...	...	...	...	...	...	...	...	...	...
American	197,635	102,177,455	121,588,111	84.0%	3,665	1,062	4,726	19,389	24.3%	153,403	164,592	93.2%	12			
Braniff	38,478	16,982,593	19,075,208	85.0%	617,440	432,345	468,729	11,541,775	5,155,331	71.4%	5,155,308	5,078,879	96.8%	184		
Caribbean	3,333	196,733	427,490	46.0%	65,050	43,158	231	360	11.7	26,025	1,646,019	91.0%	950,859	894,222	99.3%	22
C & S	27,877	11,217,753	13,747,528	81.6%	33,800	40,203	...	1,206,641	1,456,667	33,268	31.1%	291,469	30,723	81.0%	2	
Colonial	12,923	3,895,428	5,978,562	65.1%	9,377	4,732	...	610,537	604,111	65.9%	659,155	664,587	99.0%	19		
Continental	17,704	6,495,980	9,626,680	69.6%	13,835	6,266	3,772	6,78,589	1,079,776	65.9%	461,812	162,887	87.1%	17		
Delta	41,278	18,045,436	23,634,433	76.3%	71,829	49,493	...	1,916,535	3,260,331	68.9%	940,670	945,779	96.9%	26		
Eastern	Report not yet available: Data will be included at a later date.															
Hawaiian	17,502	2,495,620	2,897,673	85.1%	2,444	10,112	25,573	263,490	371,312	71.5%	134,837	92,346	100.0%	7		
Inland	7,530	1,871,036	3,139,772	59.9%	4,997	1,706	...	1,96,120	335,389	59.4%	173,646	176,618	95.3%			
MCA	22,362	6,531,278	8,972,431	76.1%	20,138	18,553	...	175,233	981,385	78.8%	458,118	458,118	99.0%	13		
National	26,884	16,662,183	22,336,211	76.0%	61,277	30,135	...	1,807,548	3,479,312	51.6%	823,799	822,942	91.7%	18		
Northeast	30,983	6,234,682	9,299,712	67.0%	8,359	8,189	...	941,129	941,129	59.7%	295,505	355,735	80.4%	10		
Northwest	53,509	32,045,278	37,026,364	85.5%	163,729	107,495	...	3,395,294	4,425,384	71.5%	1,567,949	1,346,029	96.6%	31		
PCA	113,587	33,365,823	45,241,094	76.1%	64,986	118,527	...	3,219,539	5,049,584	64.8%	1,519,653	1,365,161	96.7%	52		
Pioneer	1,506	449,783	719,194	62.3%	1,891	518	...	42,075	72,187	60.8%	79,908	84,592	93.5%	6		
(Transair)																
TWA	89,431	77,646,016	92,354,526	86.0%	659,952	352,009	195,413	8,818,544	11,892,800	77.2%	3,960,201	3,169,977	97.0%	87		
United	153,264	97,190,876	113,123,172	85.4%	838,520	408,336	336,885	10,837,769	15,996,998	68.5%	6,263,967	4,336,382	96.0%	103		
Western	37,261	14,678,911	19,227,698	76.3%	47,446	26,221	9,633	1,564,831	2,337,133	63.3%	678,599	681,325	96.5%	23		
TOTALS	893,507	448,705,890	548,017,819	81.9%	2,688,968	1,656,285	1,066,147	49,065,452	71,064,464	70.8%	24,599,823	23,117,901	96.2%	613		
	*Includes rented and owned transports															
Eastern	115,147	58,297,372	66,243,419	85.0%	253,973	226,629	25,639	6,422,469	7,888,270	82.3%	3,118,272	2,925,943	99.5%	76		

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ATA Proposes New System For Airport Classification

Hourly Plane Movements

Would Determine Rating

A NEW SYSTEM of classifying airline airports by the number of plane movements per hour is proposed by the Air Transport Association in a manual which offers joint recommendations of the airlines to municipalities and all others concerned with planning and developing airport facilities. The report, dealing primarily with the selection and layout of airports, is the first of six intended to present the viewpoint of U. S. scheduled airlines regarding the facilities they require.

As part of the general ATA effort to solve current operational difficulties, as well as to plan for future airline expansion, the publications mark a significant advance in industry-community cooperation toward a progressive airport program.

Keystone of the ATA design recommendations is the belief that public utility and convenience for the air traveler at the most reasonable cost are fundamental to every airport plan.

Outline Characteristics

With this goal uppermost, the ATA engineers drafted their basic proposals outlining desirable airport characteristics. Among the pertinent points is a strong urging that due consideration must be given to both scheduled and non-scheduled or private operations. On a single-runway airport which will handle about 40 operations per hour (20 landings and 20 take-offs), ATA states that joint airline-private flying operations will present no particular traffic problem until the combined movements approach the saturation point. At such time the separation of the two types is recommended with one or the other moving to a new field in the interest of safety.

The development of parallel pattern airports for combined airline and private operations is discouraged because of the vast differences in landing and take-off speeds, types of communications equipment and quantity thereof. In general, the airlines favor planning for the smaller municipalities on the assumption that if a single-runway pattern is not adequate for all flying activities, then a second field is required. In this manner, commercial and private operations may be segregated prior to the time when a dual-runway airport is needed.

Provision of sufficient area for expansion of integral parts of the airport is considered of prime importance in design. Thus the hangar area should usually be well removed from the terminal building and loading apron area; in some cases it may even be preferable to locate the hangars in other quadrants of the field. Aside from the need for preserving expansion space for passenger loading aprons, airline concern is evident for keeping the noise, dirt, and general activities of hangars and shop areas apart from the passenger handling section.

The vexing and costly experience of airlines with ill-sited airports throughout the country is reflected in a strong plea for careful selecting of location: "The

proper location of the transport airport within the airport system of a community is extremely important and cannot be stressed too highly. The time and money spent in selection of an airport site will repay the community many times over, if a proper selection is made, in the returns accruing from both the tangible and intangible assets which a given site possesses . . . A close-in airport connected to the municipality with express highways, properly operated and equipped with good restaurant facilities, is a drawing card for the general public . . . The proper facilities for the entertainment and edification of the general public will tend to draw a larger proportion of the public to the airport which, in turn, increases airline travel originating in that municipality and creates an accelerated cycle whereby both the direct and indirect benefits to the municipality are increased."

In their relative order of importance, the ATA suggests these seven factors for consideration in selecting an airport site:

1. Accessibility.

Possible sites should be

studied not only for distance from the center of population but also for the speed with which existing and proposed means of transportation can travel the distance. In most large cities, three population centers—business, residential, and suburban—must be considered. Declaring that it is the desire of the airlines to reduce present fares wherever possible, ATA explains that "this can only be achieved by improving the accessibility of the airlines' service . . . to create a greater mass movement."

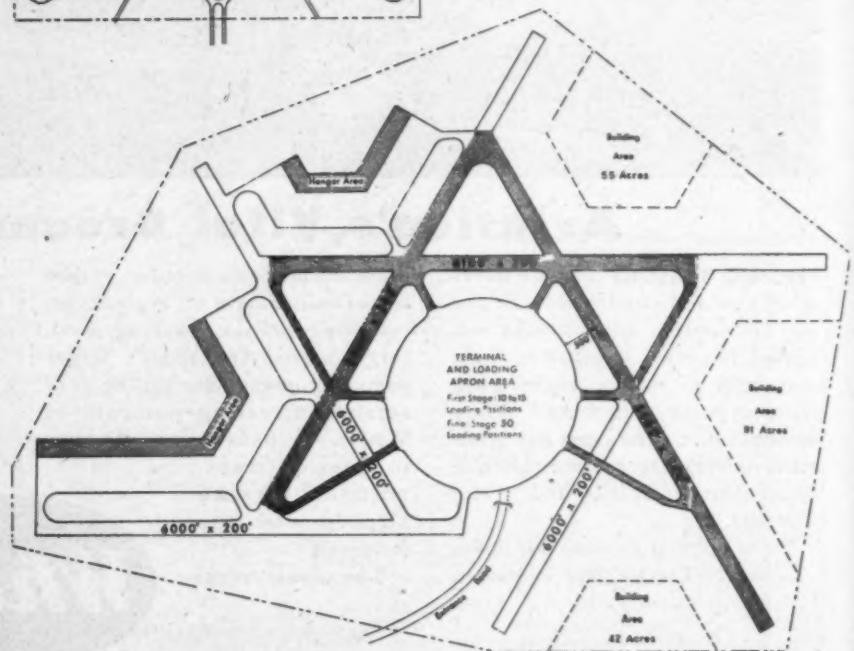
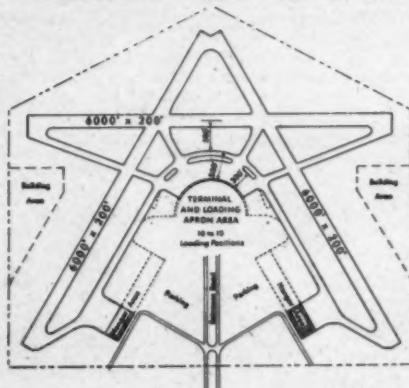
2. Relative freedom from obstructions. A survey should be made of (a) fixed obstructions, such as trees, buildings, pole lines, and mountains, and (b) mobile obstructions, such as traffic patterns of adjacent airports.

3. Expansion possibilities. To eliminate airports becoming obsolete shortly after construction, measures should be taken either to purchase or obtain options on sufficient acreage upon which an airport adequate for anticipated growth of air travel can be built.

4. Suitability of approach terrain. Terrain in areas along extensions of runways and adequate zoning protection should be considered since approach lights and radio aids will be needed in instrument approaches.

5. Meteorological conditions. Effects of wind, fog, and smoke on the site should be understood. Wind conditions should be studied for a minimum period of two years. If other conditions are equal, the airport should be located on that side of the city from which the prevailing wind blows, to keep away the smoke as much as possible.

Pictured here are two of the 11 airport design specifications drawn up by the Air Transport Association to serve as guides in future airport planning. The plans shown here are highly recommended by ATA. Figure at left is 60-degree single runway pattern which contemplates a maximum capacity of 40 operations per hour, with loading apron for 10 plane positions. This pattern requires an area of 770 acres. Figure below is a study of a 60-degree open parallel runway pattern, geared to 40 operations per hour with loading area for 10 plane positions in the initial stage. (Initial stage is shown in shaded areas). Final stage would accommodate 120 operations per hour with loading area for 30 planes.





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1049	1.17	1.98	7.48	13.28	36.78c
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6. Cost. Topography or drainage, soil conditions, building materials, and the proximity of power, telephone and other utilities are major elements in construction costs. Intelligent planning of facilities in the beginning may insure relatively trouble-free operation and low maintenance expenses.

7. Airways. Existing airways and possible future routes should be weighed in determining how a site can be best integrated into the over-all navigation system.

In developing the "Master Plan" for the airline airport, communities are urged to provide for future expansion of each functional part, since it is necessary that balance be maintained between the airport runway, loading apron, and terminal building capacity. All should be capable of step-by-step growth that will not waste prior expenditures.

Eleven specific runway patterns, based on the number of plane operations per hour, are considered in detail in the manual. Highly recommended by ATA for airports with a maximum of 40 operations per hour are a 60-degree single-runway pattern, a 45-degree single-runway pattern, a 60-degree open parallel pattern, a 45-degree open parallel pattern, and a 45-degree tangential pattern. The 45- and 60-degree open parallel patterns are designed for expansion in a later stage to handle 120 operations per hour, while the 45-degree tangential pattern could be developed for 120 or 240 plane movements per hour.

Congress Appropriates Two Billion for Aviation Purposes

The 79th Congress, which recessed early in August, appropriated a total of \$2,159,144,720 for all phases of aviation-military and civil. These appropriations are for the first full fiscal year since the end of hostilities, covering the period from July 1, 1946 until June 30, 1947.

Thus the aviation industry had a blueprint of what it might reasonably expect in military contracts as the country settled down to reconversion and the pursuits of peace. It would not know the complete answer until Congress, probably early next year, creates a National Air Policy Board to make recommendations for U. S. air power based on a careful study of all of the problems arising from a shrunken world.

Appropriations by departments and agencies are as follows: Army Air Corps, \$1,193,500,000; Navy, Bureau of Aeronautics, \$805,760,000; Civil Aeronautics Administration, \$121,911,720; Civil Aeronautics Board \$2,300,000 and National Advisory Committee for Aeronautics, \$29,673,000.

Probably the legislation of greatest importance to civil aviation was the passage of the Federal Airport bill authorizing the expenditure of \$500,000,000 in Federal funds for airport construction and development over the next seven years. Congress appropriated \$47,975,000 to finance its half of the first year's program. This sum is contained in the CAA appropriation.

Attempts to pass the Bulwinkle amendment to the Federal Airport Act were blocked a second time through efforts of Sen. Joseph Ball, (R. Minn.) acting for Sen. Owen Brewster (R., Me.) who was absent from the Senate during the last week of the session.



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Dutch Rebuilding Schiphol Airport as World Gateway

Master Plan Calls For 8 Double Parallel Runways

By GERARD B. DOBBEN

THE MAN, who in 1943, happily witnessed 200 American Marauders put Amsterdam's famous Schiphol airport out of commission in five minutes is infinitely more happy today in supervising reconstruction activities which are designed again to make Schiphol one of the largest and most modern airports in Europe by 1950.

This raid by American bombers reduced Schiphol to dust and rubble but U.F.M. Dellaert, the airport manager, who had helped to make the airport one of the leading landing fields in Europe, was happy because he knew it would curtail its use by the Germans for launching their air raids on England. He knew this raid and those to follow would hasten the departure of the Nazis and ultimately lead to the restoration of Schiphol for peaceful commerce.

When World War II started, Schiphol had a total area of 540 acres, three runways 3,000 feet long and 135 feet wide, and a main runway 3,600 feet in length. It had a modern terminal building, with approximately 20,000 square feet of floor space and six hangars, four with 40,000 square feet of floor space each and two with 30,000 each. All of these were destroyed by allied bombers in 1943 and while the Germans used some 2,000 forced laborers to repair it, allied bombers wrecked it again before the end of the year and what was left of it was systematically destroyed by the Germans in September of 1944 when they could no longer hold it.

After Schiphol's total destruction, Dellaert came back to the site frequently, disguised as an old man, ostensibly to search for fire wood. Sometimes he brought his engineers, similarly disguised,

along with him. And under the nose of the Germans, he and his men started discussing the plans for Schiphol's reconstruction. When the Germans pulled out in May of 1945, Dellaert and his men were pretty well decided on what the new and greater Schiphol should be.

Backed wholeheartedly by the Municipality of Amsterdam, Dellaert soon had 2,000 Dutchmen at work repairing the field. By July, two months after liberation day, the first plane was able to take off for Stockholm, marking the resumption of regular service. In November all runways had been repaired, three miles of new main sewers had been laid, temporary office buildings had been constructed and work was started on the erection of several large hangars. This work on the hangars was progressing rapidly until last month, when laborers, said to have been inspired by Communists, went on strike. The Government stepped in, furnished military engineers and by the end of May about 100 workers were employed—700 fewer than at the time the strike was called.

Today Schiphol has in operation one main runway of 5,300 feet, three others of the following lengths, 2,800, 4,300 and 4,600 feet respectively. While the work is far from complete, planes of the largest size in commercial use, are now landing and taking off from and for all parts of the world. Schiphol saw 70 arrivals and departures daily before the war. Today this figure has reached 90 and will be increased rapidly as new planes and new services are put in operation.

Plans for the new terminal building, which is to be a one story structure of steel and stone, were explained by A. S. Thomson, traffic manager for KLM Royal Dutch Airlines. The building will be approximately 1,000 feet long, 150 feet wide, with a second story center section for the public, with promenade decks, restaurant facilities and rest rooms. The building

will be semi-permanent in character to be replaced by a more beautiful and modern structure when finances will permit. It is expected that this building will be completed by next May although today, only the piles have been driven water-soaked Dutch soil. The building will cost around \$375,000.

It is planned to have this building highly departmentalized, with separate rooms for incoming and outgoing passengers and separate handling facilities for interior services as distinguished from the longer haul international operations, Thomson believes that when the permanent structure is built, possibly some 10 years hence, it will be strictly by building units, based on the variety of airline operations, with long haul international passenger traffic handled through one unit, short haul domestic through another, freight and express through still another building. And each of these units will probably be divided into two parts to handle incoming and outgoing business separately.

By 1950, Dellaert hopes to see Schiphol extended to embrace 950 acres. The plans call for eight double parallel runways, two main ones 8,500 feet each and six of 7,000 feet each. Whether this program will be completed by 1950 will be dependent upon the city's ability to finance the completion of the master plan. But Dellaert has hopes that air traffic will have grown to such importance by then that the Municipal Directorate of Sea and Airport of Amsterdam will be able to find the means to complete the job. The entire cost of the projected plan will be around \$20,000,000.

A glance at the map will show that Amsterdam is not the most centrally located city for intercontinental air traffic, but practically all European services operate into Schiphol. The Dutch knew this when they started to build Schiphol many years ago. But they also realized that if Schiphol was made into one of the biggest and best airports in Europe, intercontinental services would be routed through Amsterdam. This long range thinking has paid off. That's why the Dutch hope to make the new Schiphol an airport that will continue to attract the major air traffic of the world for decades to come.

Dharan 'Port Handles Four Flights Per Week

Maj. Charles O. Brandt, commanding officer of the Dharan Airport, Saudi Arabia, is reported to have told Senator Hugh Butler on a recent visit that the \$4,000,000 project was a "farce," stating: "I frankly don't know why we are here." The field has a monthly payroll of \$25,000, with the bills paid by the Air Transport Command.

Since the activation of the field last March, Dharan Airport has handled an average of only four flights a week. Brandt favors closing down the field or else turning over its management and maintenance to Transcontinental & Western Air, the only U. S.-flag airline now operating to that region, according to a news service report.

Senator Butler said he intended to initiate an investigation into the reasons for the construction of the Dharan Airport, which is located in the oil area leased from King Ibn Saud by the Arabian-American Oil Co.



The above view is of Schiphol, the international airport at Amsterdam, which is now undergoing reconstruction following its complete reduction to twisted steel and rubble by Allied bombings and German vengeance. Work on the steel hangars in the left foreground was interrupted by a strike recently and Dutch military engineers took over the reconstruction work. Temporary wooden buildings now house the airport activities, which include some 90 flights daily to and from Schiphol. The projected plans call for ultimate expenditure of nearly \$20,000,000 over possibly a 10 year period.

"excellent performer..."

"easy maintenance..."



- That is how veteran control tower operators at LaGuardia Field describe the battery of six National receivers which have been "listening posts" at the world's busiest airport

since it was opened in 1939.

Nearly seven years of continuous service attest to the kind of dependability and ruggedness that is built into all National receivers.

NATIONAL COMPANY INCORPORATED



EST. 1914

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THE MOST DISTINCTIVE NAME IN RADIO COMMUNICATIONS

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Universal Credit Plans Finance Program For Plane Purchases

Lower Insurance Rates and 24 Months To Pay Are Features

WITH recent droppings of governmental anti-inflationary curbs on long-time deferred-payment purchases of personal aircraft, Universal C.I.T. Credit Corp. has announced details of a plan for the financing of aircraft purchases at rates comparable to auto financing and at insurance rates substantially lower than prevailing insurance charges.

Under the plan, purchasers of both new and used lightplanes (3,000 lbs. gross weight or less and under \$7,500) may buy a plane on a one-third down payment and finance the balance at five percent a year over a period of up to 24 months. Planes to be used for commercial purposes may be bought at the same finance rate but at a slightly higher insurance charge. A higher rate is also charged on the insurance of used planes.

Insurance rates run 10% of the total cash sales price of the plane a year for new planes used in private business or pleasure and 12% for commercial users. Rates for used planes in the same categories run 13% and 15%, respectively. The insurance covers the plane for its full value for loss or damage from fire, theft, lightning and explosion. Wind-storm, tornado and all other ground risks are subject to \$50 deductible. The policy covers all flight and crash risks, including fire and explosion following crash, with 10% of the insured value deductible. A \$10,000 public liability and property damage policy is provided at a cost of \$26.00 a year for the private plane owner and \$38.00 for the commercial user. At prevailing rates, insurance on a new \$3,500 plane, plus public liability and property damage, would be \$499.13. Under the

C.I.T. plan, the rate would be \$376.00, a difference of \$123.13.

A typical example of the insurance and financing costs in the purchase of a \$3,000 plane over a 24-month period follows:

1. Cash Selling Price (including tax) ..	\$2,900.00
2. Extra Equipment ..	100.00
3. Total Cash Selling Price ..	3,000.00
4. Down Payment of 1/3 Cash ..	1,000.00
5. Total Unpaid Cash Balance ..	\$2,000.00
6. Flight, Crash and Comprehensive Ground Risk Insurance (percentage of Item 3) ..	20%
7. Property Damage and Public Liability Insurance ..	\$400.00
8. Total Amount to Be Financed ..	52.00
Financing Cost (10% of item 8) ..	245.20
9. Total Obligation ..	\$2,917.20
10. Total Monthly Payments of ..	121.55

C.I.T. has also advanced a plan for the wholesale financing and insuring of planes whereby the aircraft dealer pays 10% of the plane and C.I.T. finances the balance for three months at a rate of \$3.00 a month, plus $\frac{1}{4}$ of 1% a month of the amount advanced. On a \$2,300 plane, the cost of handling, insurance and financing would amount to \$24.64 for 90 days, or 27 $\frac{1}{3}$ cents a day. Fly-away insurance is provided for planes enroute from factory to dealer at a flat rate of \$5.00 for flights up to 500 miles and \$2.50 for any part of each additional 500 miles, regardless of the price of the plane. Demonstrators are financed at 10% down, the 90% balance to be financed at 3% a year, payable in five installments.

On sales of used aircraft, C.I.T. will require a one-third down payment for planes less than three years old, and one-half on planes more than three. Planes over eight years old will not be financed.

MANUFACTURING BRIEFS

Commonwealth Aviation Corp., has named Edward E. Israel as service manager. He has had extensive experience in the production, service and maintenance of aircraft with the Grumman, Republic, Seversky and Stinson companies, as well as with American Airlines.

Boeing Aircraft Co., has placed an order for 200 General Electric turbosuperchargers for installation in 50 Stratocruisers, to be delivered to the airlines, early next year. This will be the first time turbosuperchargers have been employed in commercial aircraft although they were used extensively during the war to afford fighter planes and bombers increased power and altitude.

Lear, Inc., has received a \$300,000 order for air filter actuators, intercooler flap actuators, cowling flap assemblies, ram air door shut-off assemblies and turbo cruise valve actuator assemblies for installation in Boeing's new aircraft. The equipment is to be installed in C-97 Army cargo planes, Stratocruisers and B-50.

Bendix Aviation Corporation's new west coast division has taken over the exclusive sales and service for the Pacific Division's line of hydraulic and electrical aircraft products for the entire U. S. effective July 15. Bendix has named Robert Hoff, Jud Moody and Paul Heineck as sales engineers for the Pacific division.

Early acceptance and approval of the XB-35 flying wing, by the AAF, is expected by officials of the Northrop plant which recently delivered the first model for Army flight and ground tests. The flying wing has undergone two military test flights of several hours duration, without developing a single "Squawk," according to Lt. Col. H. E. Warden, chief of the Bombardment Branch Engineering Division of the Air Materiel Command.

First deliveries of Piper Cubs and Super Cruisers have been made from the company's new assembly plant at Ponca City, Oklahoma. Hanford Eckman, general manager of the new plant, now engaged in hiring local personnel, reported that the additional output is expected to boost Piper production to 50 planes a day in the near future. The firm's current backlog covers 6,422 Cubs and 6,368 Super Cruisers.

Over-the-counter sales of surplus aircraft components and parts, are being offered at eight storage fields by the War Assets Administration. The salvaged equipment, including Wright, Allison and Pratt & Whitney engines and parts, is being sold "as is" at bases located at: Altus, Okla.; Augusta, Ga.; Jackson, Tenn.; Union City, Tenn.; Camden, S. C.; Muskogee, Okla.; Stamford, Tex., and Ponca City, Okla.

Douglas Aircraft Co., has undertaken the production of an aluminum alloy all-purpose rowboat, weighing 70 lbs., and capable of carrying six persons. The boat, adaptable for outboard motor installation, is 10 feet long and of non-sinkable construction.

Fairchild Engine and Airplane Corporation has announced the removal of its export department from Washington, D. C., to New York. Melvin J. Parks will be in charge of the new office at 30 Rockefeller Plaza, where all foreign sales of Fairchild products will be conducted.

Atomic propulsion and safe flight within a speed range from hovering to several times the speed of sound, have been predicted as possibilities within the next three decades by Wellwood E. Beall, v.p.-engineering and sales of Boeing Aircraft Co. The forecast was made on the occasion of the 30th anniversary of Boeing's service in the industry.

General Petroleum Corp., has purchased two Stinson Voyagers and a Beechcraft D18S to speed its aviation products sales program. One Stinson is to be used in contacting airport accounts in Southern California and the other will be assigned to flights in other sections of the state. The Beech will be used for executive travel.

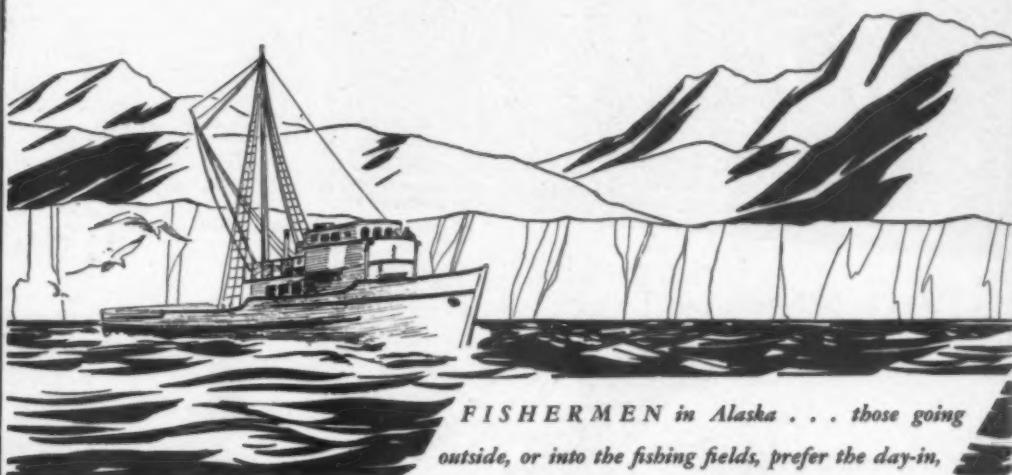


First Graduates—Members of first graduating class of the first flight training school for civilian helicopter pilots are shown at Bell Aircraft Corporation's Niagara Falls plant, with William A. M. Burden, assistant secretary of commerce for air, and Lawrence D. Bell, president of the company. Left to right: Mr. Burden, William L. Furniss, Needham, Mass.; Fred H. Bowen, Malad City, Ida.; Stephen W. O'Donnell, aide to Gaeel Sullivan, second assistant postmaster general in charge of airmail; Harlan S. Hester, Dayton, O.; Stan T. Lundberg, Toronto, Ont., and Mr. Bell.

**This Advertisement Is One Of A Series
Now Appearing In The Newspapers Of Alaska**



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"PARTNERS IN THE PROGRESS OF ALASKA" . . . Look to PNA "Route of the Coast Liners" for LEADERSHIP.

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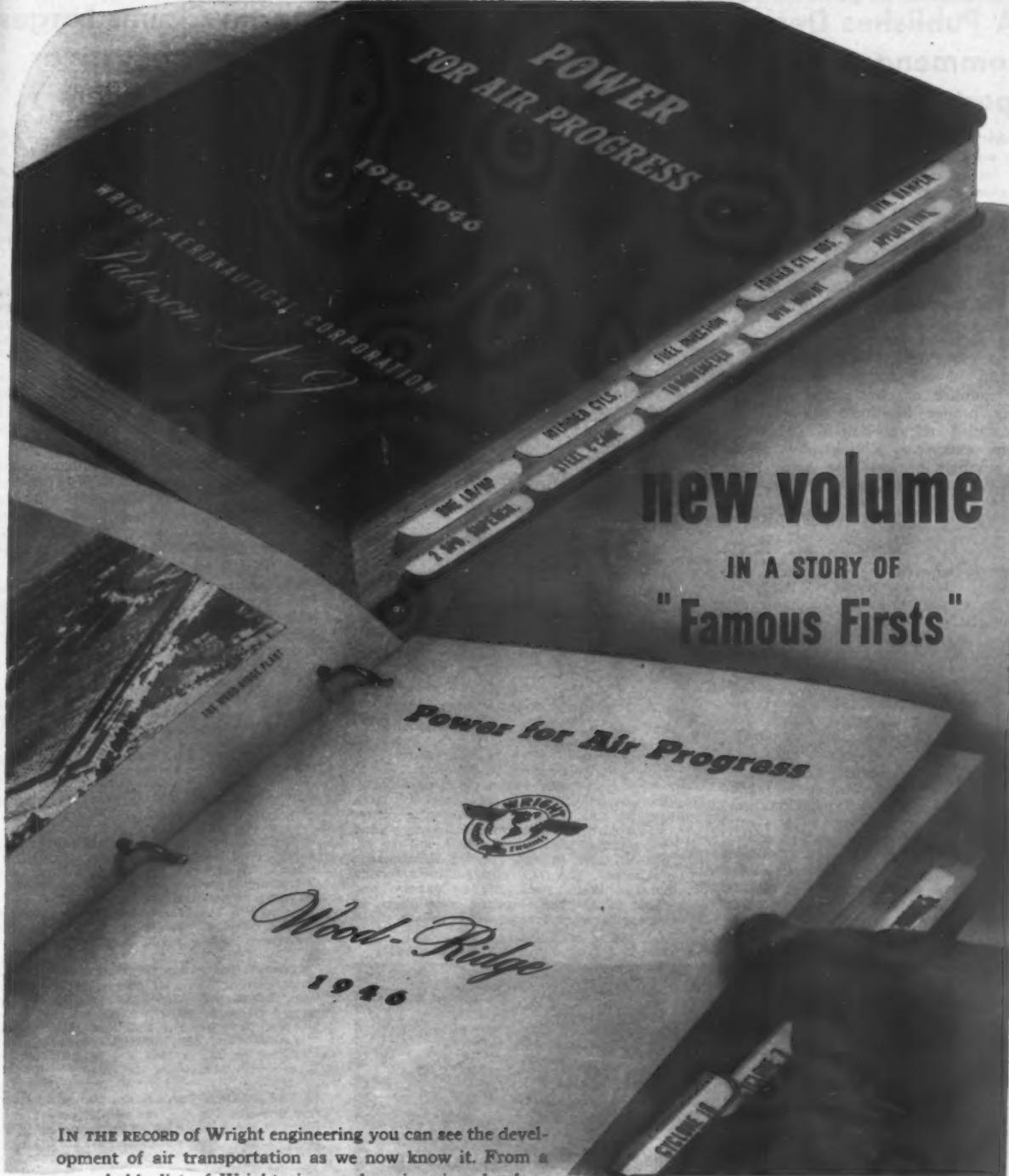
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RESERVATIONS and TICKET OFFICES
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KARL K. KATZ, General Traffic Manager



FORMERLY WOODLEY AIRWAYS

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IN THE RECORD of Wright engineering you can see the development of air transportation as we now know it. From a remarkable list of Wright-pioneered engineering developments have come the first engines with reliability for ocean crossings, first with power for tonnage transport, first with economy for practical long-range flight, both commercial and military.

Today, newly moved to the modern Wood-Ridge plant, Wright research turns to the next major developments of air transport — short-haul and ultra-long-haul operations. The story of Wood-Ridge began with Cyclone 18 production for the biggest planes now in use. The new volumes to come will tell of power pioneering for every need of transportation and national leadership in the air.

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PIONEER OF FLIGHT

ATA Publishes Design Recommendations for Airport Lighting

The Air Transport Association of America, as part of its series of manuals on design recommendations for airline airports (see story on page 60), has just issued a detailed set of ATA advice and instructions on airport lighting.

Communities planning airport construction or improvements for airline service will find in the 34-page lighting manual (part 4 of the ATA series) a description of basic considerations on the type of lighting required for night contact and day and night instrument operations, a discussion of all equipment necessary, and a number of charts and diagrams showing proper location of lights and recommended wiring details. There is also an extensive bibliography giving serial numbers of available Army-Navy and CAA specifications, drawings and equipment sources.

The airport lighting manual devotes considerable emphasis to planning for future requirements, particularly for lighting to be used in conjunction with instrument landings systems. High intensity runway lights are recommended for immediate installation. On approach lights of the high intensity type, the manual indicates that considerable development and test work is still in progress. "No definite system of approach lights," the ATA states, "can be recommended at present, but adequate provision for approach lighting should be made . . ."

Other equipment described in considerable detail includes rotating and code beacons, wind and traffic direction indicators, obstruction lighting, runway and taxiway lights, ground traffic control lights, control panels and transformer vaults, and underground ducts and cables. With each type of equipment the manual gives official or recommended instructions for location and installation.

Short Take-Off

The shortest take-off yet reported for the new Stinson 150 was observed at Wadena, Minn., Airport, during a recent competition there. V. J. Vogel, president of the NAA chapter of Wadena, sponsors of the event, wired the Stinson factory his congratulations and announced that the four-place cabin plane had become airborne following a run of only 148 feet.

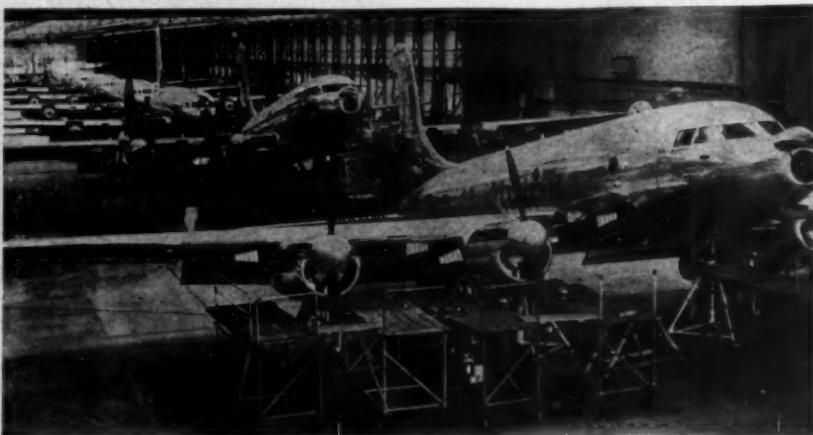
Lease Delaware Plant For Research Base

Tucker Aircraft Research Corporation has leased, with an option to purchase, a surplus factory building located near the TWA transatlantic air base, New Castle, Delaware. The plant is to be put to immediate use for the development of pilotless aircraft and personal planes, according to company president, Harrison R. Tucker.

Veterans are to be given preference in employment at the Tucker factory and 300 employees are expected to be taken on to inaugurate operations. The payroll is expected to be expanded to 1000 as soon as facilities are available. Services to be offered by the organization will include complete testing, ground and flight, of new aircraft types and the development of both personal landplanes and amphibians. A merger now pending with International-Aviation Corporation, Cleveland may later launch the Tucker firm in the lightplane manufacturing field.

CAA Foreign Offices

The CAA will open an office in Paris, during August, the first of nine additional foreign offices to be established during the coming year, according to Administrator T. P. Wright. Within the next three months, offices are scheduled to be opened at Cairo, Shanghai and London. The following three months call for openings in Sydney and Mexico City. Two more offices will be established later in the year at locations to be selected. The CAA now conducts foreign offices at Lima, Peru, Rio de Janeiro and Balboa, C. Z. The standard complement of personnel at each foreign office will be three.



Tudor I Production Line

The Manchester factory of A. V. Roe & Company is now turning out the first batch of 22 Avro Tudor I aircraft for the British Overseas Aircraft Corporation. All 22 will be out of the factory before the end of the summer and will be put on transatlantic routes to the U. S. and later to South America. Operating as a long-range high-speed transport, the Tudor I accommodates 24 passengers in its pressurized cabin. Four Rolls Royce Merlin engines give a cruising speed "up to 300 mph," according to statements of the manufacturer following test flights of the prototype.

Martin Claims Largest Backlog of Postwar Transport Orders

The Glenn L. Martin Co., and its subsidiaries reported net sales of \$18,467,137 and a net profit of \$90,878 (after all charges, including taxes) for the six months period ended June 30, 1946. This compared with net sales of \$356,162,188 and net income of \$8,379,373 for the whole of 1945.

Martin reported a business backlog of approximately \$175,000,000, of which approximately \$22,000,000 will be delivered during the last six months of this year. About \$75,000,000 will be delivered during 1947, the report said.

The 1945 net sales and income compared with \$500,445,422 and \$4,909,572 in 1944. Net income per share in 1945 was \$7.39, compared with \$4.37 in 1944. The 1945 earnings are subject to renegotiation.

On Dec. 31, 1945, the company's total current assets were \$121,557,060, and current liabilities were \$80,381,647. Federal and state income taxes for 1945 amounted to \$30,573,637. Contract terminations thus far approximate \$500,000,000, the company reported.

Martin said that its orders for 328 twin-engine transport planes represented the largest total of post-war airliner sales made by any company in the world. The orders include 132 202s, 159 303s, and 36 of the cargo version of the 202.

• Boeing Airplane Co., and its domestic subsidiary, Boeing Aircraft Co., reported a consolidated net loss of \$1,071,403 for the six months ended June 30, 1946. In addition, the company in the six-months period has charged \$2,275,000 against reserves set up by the directors during the war period to cover re-conversion costs and the cost of developing new products and markets, the report said.

• Menasco Manufacturing Co., Burbank, reported realization of \$1,523,255 gross from its offering of 370,000 shares of common stock. Stockholders who exercised their rights to warrants subscribed for 326,745 shares at \$4 per share. This represented more than 85% of the offering. The remaining 43,255 shares were sold to the public at \$5 a share.

• Aircraft Industries Association reported that total current assets of 23 aircraft and equipment companies were \$1,711,000,000 in 1945, compared with \$2,597,000,000 in 1944. Total current liabilities for 1945 and 1944 were \$1,099,000,000 and \$2,175,000,000 respectively. Net working capital in 1945 was \$612,000,000, compared with \$422,000,000 in 1944.

• The Aviation Corporation has announced a net income, for the six month period ending May 31, 1946, after all charges including Federal taxes, amounting to \$12,723,233, equal after preferred dividends to \$2.00 per share on the 5,938,334 common shares then outstanding. Net income for the six months includes extraordinary profits of \$12,720,000, after taxes, on sale of 211,000 shares of American Airlines, Inc., and \$350,000 representing estimate of federal income and excess profits tax refund, resulting from "carry back" provisions of the Internal Revenue Code. The consolidated net earnings do not include the Corporation's equity in undistributed profits or in losses of associated companies not consolidated.

• Jacobs Aircraft Engine Co., Pottstown, Pa., has elected Albert R. Jacobs, founder of the company as vice-president and general manager. He previously served as director of engineering and sales. Kenneth N. Thompson, former director of labor relations, was named assistant general manager.

PIPER CUB OR DC 3

• SPARTAN AERO REPAIR...100% C.A.A. Approved Station No. 50...has the modern facilities and skilled workmen for repair, overhaul or complete conversion of all types and sizes of aircraft. No job is too large—no job is too small. Spartan service is today being utilized by private owners of aircraft ranging from Piper Cubs to DC 3's.

...SPARTAN has the modern facilities and skill for repair and overhaul . . .



(Above) Section of the Spartan Airplane Overhaul Department.



Spartan Aero Repair is America's most conveniently located station...in the heart of the nation and the center of America's finest flying country.

Interiors Custom Built to Your Own Specifications

Complete conversion of military aircraft purchased from surplus... Interiors re-designed and re-built for comfort and practical efficiency... or custom built according to your most elaborate plans. Repair and overhaul of everything on a private airplane whether it be of wood, fabric or metal construction—also expert service for all component parts—engines, propellers, radio, instruments, etc. WRITE for complete information.

SPARTAN AERO REPAIR

Division of Spartan Aircraft Company
TULSA, OKLAHOMA

Financial Comment

by
I. W. Burnham, II
of

Burnham & Company
Members of New York Stock Exchange

The seriousness of the present difficulties of the nonscheduled air carriers has not as yet been thoroughly realized by the owners of the capital stock recently issued by many of these companies. In retrospect it seems that the new issues of most of these carriers would not have gone over as successfully as they did if the public had thoroughly understood the law as it applies to the operation of the air transport industry. It is not meant to imply that any of the issues recently sold to the public were fraudulent. In practically every instance of stock offering, the prospectus indicated some of the dangers of operating without a certificate, and also that additional financing would probably be needed. In most cases the fact that the securities were of a speculative nature was also stated. However, due to certain limitations of present S.E.C. regulations, very few buyers of new issues actually had a final prospectus until after they had purchased stock. This applies to practically all new issues, and the S.E.C. has recently stated that changes in the rules will be made so that the buyer can look first before he leaps.

The recent seller's market for new issues and the popularity of new airline securities made it possible for a considerable number of non-scheduled air carriers to raise capital in sizable amounts from the public. Very little money has been put into these companies by the managements themselves, but their organizational activities have been highly valued in determining capitalization. With the Civil Aeronautics Board raising the question of status of the nonscheduled operators there is a very natural resentment on the part of the nonscheduled carrier managements and employees. However, the stockholders have yet to be heard from—and it probably won't be long.

A study of recent reports to the CAB reveals that the great majority of the new carriers are losing money. They have slim enough bankrolls, and now with the certificated airlines more adequately equipped, the competition for freight and passenger business is keen. The inevitable consequence is that the new carriers will be in the market for additional funds. Where will they come from? Banks and insurance companies won't lend large amounts to these carriers in their uncertain predicament, and the present stockholders won't bite at the same bait twice.

This incident in the history of air transportation is unfortunate for the entire industry.

There is little question that the financing of the new feeder airlines—the certificated feeders—has been made more difficult. It is fortunate that the CAB has come to defend the certificated carriers whose public and private dealings have, for the most part, been beyond reproach. But the present situation is a warning to the investing public to carefully scrutinize airline ventures to determine whether the chances favor success or failure in the investment (speculation) of their funds.

Leading Aviation Securities New York Stock Exchange

(Courtesy of Burnham & Co.)

	Range for 6 Days Ended 7/26/46				Range for 6 Days Ended 8/2/46				Two Weeks Net Change	
	High	Low	High	Low	High	Low	High	Low	Net Change	
AIRLINES										
American Airlines	197 $\frac{1}{2}$	145 $\frac{1}{2}$	188 $\frac{1}{2}$	144 $\frac{1}{2}$	183 $\frac{1}{2}$	143 $\frac{1}{2}$	143 $\frac{1}{2}$	143 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Banana Airways	344 $\frac{1}{2}$	231 $\frac{1}{2}$	265 $\frac{1}{2}$	231 $\frac{1}{2}$	275 $\frac{1}{2}$	232 $\frac{1}{2}$	275 $\frac{1}{2}$	275 $\frac{1}{2}$	+ 2 $\frac{1}{2}$	
Eastern Air Lines	311 $\frac{1}{2}$	251 $\frac{1}{2}$	265 $\frac{1}{2}$	251 $\frac{1}{2}$	265 $\frac{1}{2}$	251 $\frac{1}{2}$	251 $\frac{1}{2}$	251 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
National Airlines	347 $\frac{1}{2}$	23	265 $\frac{1}{2}$	23	265 $\frac{1}{2}$	23	265 $\frac{1}{2}$	265 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Northwest Airlines	961 $\frac{1}{2}$	361 $\frac{1}{2}$	401 $\frac{1}{2}$	361 $\frac{1}{2}$	381 $\frac{1}{2}$	43 $\frac{1}{2}$	39	39	+ 2 $\frac{1}{2}$	
Pan American Airways	27	17 $\frac{1}{2}$	181 $\frac{1}{2}$	17 $\frac{1}{2}$	175 $\frac{1}{2}$	19	171 $\frac{1}{2}$	171 $\frac{1}{2}$	+ 7 $\frac{1}{2}$	
Penn-Central Air.	453 $\frac{1}{2}$	38	375 $\frac{1}{2}$	38	375 $\frac{1}{2}$	401 $\frac{1}{2}$	385 $\frac{1}{2}$	385 $\frac{1}{2}$	+ 21 $\frac{1}{2}$	
Trans. & Western Air	71	44 $\frac{1}{2}$	481 $\frac{1}{2}$	44 $\frac{1}{2}$	441 $\frac{1}{2}$	411 $\frac{1}{2}$	44 $\frac{1}{2}$	44 $\frac{1}{2}$	+ 4 $\frac{1}{2}$	
United Air Lines	541 $\frac{1}{2}$	324 $\frac{1}{2}$	384 $\frac{1}{2}$	324 $\frac{1}{2}$	361 $\frac{1}{2}$	41 $\frac{1}{2}$	38	38	+ 4 $\frac{1}{2}$	
Western Air Lines	36	20 $\frac{1}{2}$	22	20 $\frac{1}{2}$	23	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
MANUFACTURERS, ETC.										
Aviation Corp.	143 $\frac{1}{2}$	9	93 $\frac{1}{2}$	9	103 $\frac{1}{2}$	9 $\frac{1}{2}$	103 $\frac{1}{2}$	103 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Aviation Corp. pf.	83 $\frac{1}{2}$	58	84 $\frac{1}{2}$	57	86 $\frac{1}{2}$	57	87 $\frac{1}{2}$	87 $\frac{1}{2}$	+ 2 $\frac{1}{2}$	
Bell Aircraft	304 $\frac{1}{2}$	23	25	23	26 $\frac{1}{2}$	23	26 $\frac{1}{2}$	26 $\frac{1}{2}$	+ 3 $\frac{1}{2}$	
Bendix Aviation	58	44 $\frac{1}{2}$	471 $\frac{1}{2}$	44 $\frac{1}{2}$	47 $\frac{1}{2}$	47	48 $\frac{1}{2}$	48 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Boeing	38	25 $\frac{1}{2}$	27 $\frac{1}{2}$	25 $\frac{1}{2}$	28 $\frac{1}{2}$	29	28 $\frac{1}{2}$	28 $\frac{1}{2}$	+ 1	
Cons. Vultee	33 $\frac{1}{2}$	23 $\frac{1}{2}$	24 $\frac{1}{2}$	23 $\frac{1}{2}$	23 $\frac{1}{2}$	24 $\frac{1}{2}$	23 $\frac{1}{2}$	23 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Continental Motors	24	18	18 $\frac{1}{2}$	18	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Curtiss-Wright	34 $\frac{1}{2}$	27 $\frac{1}{2}$	37 $\frac{1}{2}$	27 $\frac{1}{2}$	37 $\frac{1}{2}$	37 $\frac{1}{2}$	37 $\frac{1}{2}$	37 $\frac{1}{2}$	+ 4 $\frac{1}{2}$	
Curtiss-Wright "A"	341 $\frac{1}{2}$	19 $\frac{1}{2}$	20 $\frac{1}{2}$	19 $\frac{1}{2}$	20 $\frac{1}{2}$	20	20 $\frac{1}{2}$	20 $\frac{1}{2}$	+ 4 $\frac{1}{2}$	
Douglas Aircraft	1087 $\frac{1}{2}$	806 $\frac{1}{2}$	877 $\frac{1}{2}$	806 $\frac{1}{2}$	881 $\frac{1}{2}$	86	881 $\frac{1}{2}$	881 $\frac{1}{2}$	+ 4 $\frac{1}{2}$	
Grumman Aircr. Eng.	82 $\frac{1}{2}$	42	45	42 $\frac{1}{2}$	44 $\frac{1}{2}$	42 $\frac{1}{2}$	42 $\frac{1}{2}$	42 $\frac{1}{2}$	+ 2 $\frac{1}{2}$	
Lockheed Aircraft	451 $\frac{1}{2}$	27 $\frac{1}{2}$	29 $\frac{1}{2}$	27 $\frac{1}{2}$	27 $\frac{1}{2}$	30 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	+ 3 $\frac{1}{2}$	
Martin, Glenn L.	45 $\frac{1}{2}$	37	39 $\frac{1}{2}$	37	40 $\frac{1}{2}$	37	40 $\frac{1}{2}$	40 $\frac{1}{2}$	+ 3 $\frac{1}{2}$	
National Aviation	283 $\frac{1}{2}$	19 $\frac{1}{2}$	21	19 $\frac{1}{2}$	21	23 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{2}$	+ 2	
North Am. Aviation	169 $\frac{1}{2}$	124 $\frac{1}{2}$	127 $\frac{1}{2}$	124 $\frac{1}{2}$	134 $\frac{1}{2}$	143 $\frac{1}{2}$	129 $\frac{1}{2}$	129 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Republic Aviation	247 $\frac{1}{2}$	18 $\frac{1}{2}$	19 $\frac{1}{2}$	18 $\frac{1}{2}$	20 $\frac{1}{2}$	22 $\frac{1}{2}$	19 $\frac{1}{2}$	19 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Sparry Corp.	42 $\frac{1}{2}$	27 $\frac{1}{2}$	28 $\frac{1}{2}$	27 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
United Aircraft	374 $\frac{1}{2}$	271 $\frac{1}{2}$	297 $\frac{1}{2}$	271 $\frac{1}{2}$	291 $\frac{1}{2}$	273 $\frac{1}{2}$	273 $\frac{1}{2}$	273 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Wright Aircr.	108	83	89 $\frac{1}{2}$	83	90	90	90	90	+ 1 $\frac{1}{2}$	

New York Curb Exchange

	Airlines				Manufacturers, Etc.					
	12	7	9 $\frac{1}{2}$	9	9 $\frac{1}{2}$	28	28	28	7	- 2 $\frac{1}{2}$
AIRLINES										
Alaskan Airlines	12	7	9 $\frac{1}{2}$	9	9 $\frac{1}{2}$	28	28	28	+ 2	
Colonial Airlines	43	25	26	25	28 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	+ 3 $\frac{1}{2}$	
Northeast Airlines	21 $\frac{1}{2}$	15	17	15	18 $\frac{1}{2}$	16 $\frac{1}{2}$	16 $\frac{1}{2}$	16 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Pan American Air. war.	14	8 $\frac{1}{2}$	7 $\frac{1}{2}$	8 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
MANUFACTURERS, ETC.										
Aero Supply 'A'	23 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Aero Supply 'B'	7 $\frac{1}{2}$	4 $\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Air Associates	23 $\frac{1}{2}$	18	17 $\frac{1}{2}$	18 $\frac{1}{2}$	17 $\frac{1}{2}$	17 $\frac{1}{2}$	17 $\frac{1}{2}$	17 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Air Investors	3 $\frac{1}{2}$	3	3	3	3	3	3	3	+ 1 $\frac{1}{2}$	
Air Investors, ev. pf.	17 $\frac{1}{2}$	12 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Airron Mfg.	22 $\frac{1}{2}$	13 $\frac{1}{2}$	14	13 $\frac{1}{2}$	15 $\frac{1}{2}$	15 $\frac{1}{2}$	15 $\frac{1}{2}$	15 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Airron Mfg. pf.	27 $\frac{1}{2}$	18 $\frac{1}{2}$	20 $\frac{1}{2}$	18 $\frac{1}{2}$	21 $\frac{1}{2}$	19 $\frac{1}{2}$	21 $\frac{1}{2}$	21 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Aro Equip.	9 $\frac{1}{2}$	6 $\frac{1}{2}$	5 $\frac{1}{2}$	6 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Bellanca Aircraft	31 $\frac{1}{2}$	23 $\frac{1}{2}$	24 $\frac{1}{2}$	23 $\frac{1}{2}$	24 $\frac{1}{2}$	24	24	24	+ 1 $\frac{1}{2}$	
Brewer Corp.	10 $\frac{1}{2}$	6 $\frac{1}{2}$	7 $\frac{1}{2}$	6 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	7 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Fairchild Corp.	12 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	10 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Irving Air Chute	13 $\frac{1}{2}$	10	10 $\frac{1}{2}$	10	10 $\frac{1}{2}$	10 $\frac{1}{2}$	10 $\frac{1}{2}$	10 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Monaco Mfg.	8 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	5 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Northrop Aircraft	18 $\frac{1}{2}$	10 $\frac{1}{2}$	13 $\frac{1}{2}$	12	13 $\frac{1}{2}$	12 $\frac{1}{2}$	13 $\frac{1}{2}$	13 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Piper Aircraft	18 $\frac{1}{2}$	7 $\frac{1}{2}$	8 $\frac{1}{2}$	7 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Roosevelt Field	9 $\frac{1}{2}$	6 $\frac{1}{2}$	7	6 $\frac{1}{2}$	7	7	7	7	+ 1 $\frac{1}{2}$	
Solar Aircraft	29 $\frac{1}{2}$	17 $\frac{1}{2}$	24	22	24	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	+ 2 $\frac{1}{2}$	
United Aircraft Prod.	29 $\frac{1}{2}$	18 $\frac{1}{2}$	20 $\frac{1}{2}$	18 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	20 $\frac{1}{2}$	+ 1 $\frac{1}{2}$	
Waco Aircraft	9 $\frac{1}{2}$	6	8	6	8	8	8	8	+ 1 $\frac{1}{2}$	

Over-the-counter Securities

	July 26, 1946	August 2, 1946
	Bid	Asked
AIRLINES		
Air Cargo Transport	37 $\frac{1}{2}$	41 $\frac{1}{2}$
All American Aviation	7 $\frac{1}{2}$	7 $\frac{1}{2}$
American Airlines, ev. pf.	92 $\frac{1}{2}$	97 $\frac{1}{2}$
American Overseas Airlines	87	88
Chicago & Southern Air Lines	19 $\frac{1}{2}$	20
Commodore Air Lines	17 $\frac{1}{2}$	18 $\frac{1}{2}$
Delta Air Lines	40 $\frac{1}{2}$	41 $\frac{1}{2}$
Delta Air Freight	34 $\frac{1}{2}$	34 $\frac{1}{2}$
Emery Air Freight Corp.	8 $\frac{1}{2}$	8 $\frac{1}{2}$
Expresso Aerea	8 $\frac{1}{2}$	8 $\frac{1}{2}$
Flamingo Air Service, Inc.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Great Circle Airways, Inc.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Hessler Air Freight Corp.	9 $\frac{1}{2}$	10 $\frac{1}{2}$
Interstate Airlines, Inc.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
International Airlines, Inc.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Island Air Ferries, Inc.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Latin American Airways, Inc.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
National Skysways Freight Co.	2 $\frac{1}{2}$	3
Public Flyers, Inc.	10 $\frac{1}{2}$	10 $\frac{1}{2}$
TACA Airways	10 $\frac{1}{2}$	10<math

AMERICAN AVIATION

Operations and Maintenance Review

Including
COMMUNICATIONS—NEW EQUIPMENT—AIRPORTS

CAB Safety Bureau Submits Fire Prevention Proposals

Modifications Expected In All Transport Planes

PLANS for extensive fire prevention modifications to all air carrier planes, under government consideration for a couple of years and passed to the airlines last April for study and comment, now are ready for presentation to the Civil Aeronautics Board and thence, in final form, to the industry. The Safety Bureau states it is now fitting together its own recommendations and the reactions it has received from airlines, and will be ready to place a full set of modification requirements before the CAB within a week.

No estimates are available on the cost in time and money of modifying every plane in commercial airline service, but government and industry representatives agree that the expense will be considerable.

The list of modifications to receive final action from the CAB is expected to be essentially the same as the list submitted to the airlines and the Air Transport Association earlier this year. Major undecided factor at present is the period of time which will be allowed for making necessary modifications. Consideration has been given to recommending that necessary structural and equipment changes be made as planes come in for periodic overhauls. However, with realization that this might considerably extend the normal overhaul period, particularly in view of still-prevalent shortages of certain materials, airlines have been requested to survey their facilities and submit estimates through the Air Transport Association on the earliest date modification of fleets can be completed. It is probable that, on the basis of these estimates, a distant date will be set for industry-wide completion of the job—with details of scheduling left more or less up to the separate companies.

Terminology of the original draft of proposed changes includes the words "aircraft used in scheduled air carrier operations," without reference to similar planes used by non-scheduled passenger and cargo carriers. Final wording of the regulation as regards commercial planes in non-scheduled service is as yet undetermined, with the CAB as yet undecided in the matter.

The original draft of proposed amendments to Civil Air Regulations as presented to the airlines included the following requirements for all engine compartments, baggage compartments, passenger cabins and pilot compartments. Certain minor revisions may appear in the CAB-approved final version, but it is indicated that the same end-results will be demanded.

1. Engine Compartments

a. Means . . . shall be provided . . . for shutting off the flow in all lines conveying oil, fuel, de-icer, and other combustible fluids to the engine compartment. It shall be possible to cut off the flow of these lines to any engine individually. Such means shall be immediately operable from the cockpit or flight engineer's station. It shall be possible to effect a prompt return to the original valve settings during flight . . .

b. Flexible fire-resistant lines and ends shall be provided for all lines carrying inflammable fluids or vapors forward of the firewall.

c. All vent lines . . . which carry inflammable materials must be of copper tubing, or of better fire-resistant qualities. Fittings must also be of fire-resistant materials.

d. All lines in any wheel well aft of the firewall carrying inflammable fluids shall be fire-resistant or protected by a stainless steel shroud.

e. The firewall shall be constructed in such a manner that no hazardous quantity of air, fluids, or flame can pass from the engine compartment to other portions of the airplane. Firewalls . . . and fittings . . . shall be constructed of material capable of withstanding a flame temperature at 2,000 degrees Fahrenheit for 15 minutes without flame penetration and shall be protected against corrosion.

2. Baggage Compartments

a. Any baggage compartment not readily accessible to a member of the crew during flight shall be adequately lined with a fire-proof material . . . and . . . shall contain an approved fire or smoke detector and an extinguishing system which will adequately flood the compartment and keep the extinguishing agent in the compartment without losing it through ventilation.

b. Baggage compartments which have a door permitting a member of the crew to enter during flight need only be equipped

with an approved fire or smoke detector and fire warning device.

c. Cabin or lavatory ventilation systems shall not exhaust directly into any baggage compartment.

3. Passenger Cabins

a. Sound proofing and covering materials in cabin construction shall be fire-proof or treated in such a way as to render these materials fire-resistant.

b. Lavatory or rest room shall be adequately lined with a fire-proof material so as to prevent fire from spreading to adjacent structure.

c. A fire extinguisher of an approved type shall be installed at each end of the passenger cabin in such a manner as to be accessible to the passengers. One of these must contain carbon tetrachloride, and one carbon dioxide.

4. Pilot Compartment

a. All soundproofing and covering materials in the pilot compartment shall be fire-proof or treated in such a way as to render these materials fire-resistant.

Douglas to Publish DC Trouble Reports

James S. Farra, Douglas Aircraft Co. service manager, has announced that Douglas is inaugurating publication of a monthly service trouble summary compiled from reports submitted by all users of DC equipment. The summary will be a composite report on all data turned in on the new standardized service trouble report.

The monthly publication will list specific service problems encountered by users of DC-3, DC-4 and DC-6 equipment and will describe corrective action taken. Dissemination of recommended procedures is expected to enable other operators to avoid similar trouble or to take similar corrective measures. Fourteen airlines, with the ATA and the CAA, are cooperating in the program.

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By DAVID SHAWE

Quite some time ago we baited our breath in anticipation of an interesting story following the efforts of War Assets Administration to peddle seven surplus Boeing 314 clippers. These durable old boats have been knocking around under one owner and another for many years, and they have cost someone (primarily the taxpayer, we suspect) a large wad of money. Our interest in the matter has had to do partly with how much of a return the taxpayer would get on his investment, and partly with whether the buyer would boil them down for scrap or attempt to keep them afloat and aly.

You may recall that WAA originally put them up at a flat \$50,000 each. When that proposition brought no takers satisfactory to WAA, all seven of them with spare parts were offered as a unit, and sealed bids were requested through nationwide advertising. Just as this issue is put to bed we are able to report that the bids, and there were more than a few, have been opened and the planes are as good as sold. Details haven't been made public, but if the high bidder proves financially and otherwise responsible the taxpayer will get more than the \$50,000 each originally asked, and the planes will go into commercial service rather than into the melting pot.

Several good guide books for airport development have crossed our desk in recent weeks. In addition to the first of the Air Transport Association's series of commercial airport manuals, mentioned elsewhere in this issue, there is a very thorough work called "Airport Planning," by EAL's Charles Froesch and Walther Prokosch, which we recommend to anyone contemplating airport construction or improvement. For municipalities needing guidance on contracts, leases and management as well as on construction, Aviation Services Co. of Minneapolis has prepared a worthwhile loose-leaf handbook as a basic reference work for communities which subscribe to their consulting service.

TWA reports that localizer glidepath receiver equipment is installed on all company Constellations. Localizer equipment is ready for use in all five of TWA's Stratoliners and in more than a third of the DC-3s, with remaining installations being rushed to completion.

Another equipment installation item to come our way reports that PCA has been experimenting with a Sperry A-12 electric automatic pilot in a DC-4. PCA says the A-12 "is effective in any normal attitude of the plane and produces new standards of control in any kind of weather."

It is a rather common knowledge that The Glenn L. Martin Co. builds a lot of things besides airplanes, but when these things are called to your attention one at a time you aren't apt to be as impressed as we were the other day when we got hold of a copy of their catalog on ground handling and airplane servicing equipment. It illustrates six different types and variations of passenger ramps, quite a variety of ladders and work stands, a mechanical cargo loader and a flat bed belly loader, and such diverse items as tow bars, tail supports, propeller dollies, engine and wing section alings, gear lock devices, and engine, wing and control surface covers. Latest addition to the Martin line is an air terminal trip indicator which shows, under an airline's insignia, the flight number, departure time, gate, and cities along the route.

AiResearch Supplies Cabin Air Conditioning System

Will Be Used On Connie And Boeing Stratocruiser

A complete air conditioning system, incorporating temperature and humidity control, oxygen and pressure regulation at high altitudes, and complete cabin ventilation, is being supplied to manufacturers of super-transport by AiResearch Manufacturing Co. of Los Angeles. Now going into Lockheed Constellation 449's scheduled for Fall delivery, the system will also be used in the Boeing Stratocruiser which several airlines will place in service next year. In addition, the Douglas DC-6 uses the AiResearch expansion turbine refrigeration unit as a part of its air conditioning assembly, and a number of other new military and commercial models will use either the entire system or various components.

AiResearch cabin pressure regulators, weighing from five to eight pounds, were first developed for high altitude bombers like the B-29. Undesirable effects of rapid ascent and descent can be eliminated by setting the regulator for a gradual increase or decrease in cabin pressure, in addition to the normal requirement of maintaining low altitude cabin air pressure and oxygen content during high altitude flight.

Seeking greater efficiency in constant control of adequate air flow into the cabin, AiResearch also has developed its own supercharger with a variable speed drive which permits a uniform flow of compressed air to the cabin regardless of engine speed. This supercharger pro-

vides a complete change of cabin air every two minutes.

Third major component of the super-transport air conditioning system is a midget air expansion turbine for rapid air cooling. Designed in several sizes with flow rates from 100 to 1400 cubic feet of air per minute, the turbine when used in conjunction with a high efficiency heat exchanger can create a 200 degree temperature drop equal to melting 1000 pounds of ice per hour. Rotor speeds in the midget turbine are as high as 100,000 revolutions per minute, and the smallest turbine weighs only three pounds.

Much of the experimental and development work done by AiResearch on cabin air conditioning has been carried out in the company's own "strato lab," a large, two-section pressurized chamber in which engineers can test equipment under simulated flight conditions at altitudes up to 75,000 feet.

To Advise Danish

G. A. Seidel, TWA development engineer, has been loaned by the company to Danish Airlines (DDL) to serve as a consultant to the Danish line for a six month period. Seidel will be concerned chiefly with the layout and equipment of DDL's overhaul and maintenance facilities, but will also advise the company on maintenance procedures on American equipment now being acquired and placed in operation on foreign and transatlantic routes.



Sketch shows flow of air through essential components of the AiResearch air conditioning system going into new Constellation 449's. Air heated in passing through the cabin supercharger is brought down to comfortable temperature by a midget expansion turbine and heat exchanger capable of reducing temperatures as much as 200 degrees.

Curtiss-Wright to Produce Electronic Flight Trainers

New Machine Simulates All Phases Of Actual Flight

FOLLOWING more than five years of research and development, during which approximately \$1,000,000 was expended on the project, Curtiss-Wright Corp. has announced that it is ready for commercial production of the new Curtiss-Wright Dehmel electronic flight trainer.

The Dehmel trainer is notable both for its all-electric operation and for the fact that it can be produced in a variety of types duplicating the cockpit arrangement, instrumentation and flight characteristics of any plane in which pilots are to be trained. Commercial airlines, military services, and flight schools will thus be able to give training for specific aircraft with complete simulation of everything from propeller synchronization to blind landings.

An arrangement of electronic servo mechanisms is used to arrive at almost instantaneous solution of simultaneous differential equations expressing the motion of the airplane in space, and to translate the solutions into flight instrument indications. Instruments operate without actual turning and banking of the trainer fuselage, and all mechanism is contained in the trainer itself without auxiliary tables or other equipment.

Automatic radio range equipment, with visible and audible marker signals, is built into the Dehmel trainer for instrument flight and radio navigation instruction. The range incorporates four arms adjustable to represent course legs of any radio range station in the country, with automatic fan markers, Z marker, cone of silence, radio direction finder and aural null apparatus, and complete blind landing simulation. Wind direction and velocity can be reproduced in any desired manner, and the trainer even offers reproduction of engine noises under various settings and flight attitudes.

Instrument recordings give full 360 degree maneuverability in all directions. Effects of control pressures, power settings, and other factors such as icing, flap and landing gear position, and airplane attitude are coordinated and indicated just as they would be in actual flight.

A permanent chart of all courses and maneuvers is kept on a flight path recorder built into the trainer. A special panel from which the instructor sets up problems and operates instruments is also a part of the trainer itself.

Accessibility of components for quick servicing, and low operating and maintenance costs, are claimed for the Dehmel trainer. A competent radio repair man can service the equipment.

Initial production is on a model of the Army's AT-6, shown in accompanying illustrations. Larger models, offering full reproduction of multi-engine instruments and flight characteristics, can be built to train pilots in both current types and transports now being developed. Quantity production price on the AT-6 version is reported to be around \$20,000, with airline trainer types scheduled to sell for between \$100,000 and \$200,000.



Electronic Flight Trainer—

The Curtiss-Wright Corp. plant at Caldwell, N. J., is now in production on this new electronic flight trainer which is offered in complete simulation of the instruments and flight characteristics of any commercial or military plane. These views show a trainer model of the AT-6 now being delivered to the Army. At right, Dr. R. C. Dehmel, inventor of the trainer describes functions of the complete trainer while the stripped view below shows arrangement of the multi-servo mechanism and other components of the device.

G.G.Budwig Joins NAL As Maintenance Head

Gilbert G. Budwig, pioneer aviation figure brings 30 years of diversified experience to National Airlines in joining the company as manager of maintenance. Budwig took up flying in 1916, served as a civilian flight instructor during World War I, and became one of the six original government air mail pilots. After a period as a barnstormer and commercial test pilot, he joined the aeronautics branch of the Department of Commerce in 1927, serving as a regional inspector and then as chief inspector. In 1929, upon the resignation of Clarence Young to become assistant secretary for air, Budwig was appointed Director of Aeronautics for the Department of Commerce, a post which he resigned in 1933 to form his own aircraft parts manufacturing company in California. In 1941 he became president and general manager of Aircraft Components, Inc., and two years later was called to active duty as a major at the Marine Corps Air Station, Cherry Point, N. C.



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New Equipment

Fatigue Relief Pilot

Lear, Incorporated in cooperation with the Control Equipment Branch of the AAF Materiel Command at Wright Field, has developed a 27 pound automatic flight control system originally intended for fighter aircraft but equally suitable for other planes. Components of the system are simply a cockpit controller, an amplifier unit containing vertical and directional gyros, and a triple output friction drive servo unit which directly controls cables operating the ailerons, rudder and elevators. The equipment is all electric and operates from a 24-28 volt system with low battery drain.

Intercom Maintenance Service

Aviometer Corp., 370 W. 35th St., New York, has established a maintenance and replacement parts service for purchasers of microphones, headsets, handsets and aircraft intercommunication equipment. The company guarantees new installation standards of performance in rebuilt equipment, and offers advisory service in training airline personnel in factory-approved maintenance methods.

Self-Adjustment for Bendix Brakes

Segmented rotor type airplane brakes manufactured by Bendix Aviation Corp. are to be equipped with an automatic self-adjusting feature intended to eliminate periodic manual adjustment as brake lining wears. Easier application of brakes on heavy planes, greater pedal efficiency, and reduced auxiliary power needed for brake application, are claimed for the new feature. The same brake is also being constructed with an integral ventilating system both for cooling and for drawing off dust produced as linings wear.

Wire Recorded Announcements

Sound Media, a New York firm with offices at 17 E. 46th St., is demonstrating a compact mechanism (12 x 12 x 14 inches) with an electric eye actuating mechanism, which can be used for broadcasting wire recorded commercial announcements, arrival and departure notices, safety warnings to persons crossing a danger area, and other pre-recorded messages.

Continental Fuel Injection

Current advertisements of Continental Motors Corp., Muskegon, Mich., are offering and recommending fuel injection equipment on all Continental A, C and E series aircraft engines. Ads emphasize freedom from carburetor and manifold icing, faster acceleration and improved engine performance, and increased smoothness through reduction of sputtering.

Dynoptimum Tube Tester

Radio City Products Co., 127 W. 26th St., New York, is offering an accurate and economical tube tester usable on virtually every type of receiving tube. Designated as Model 322, the tester has only four controls and incorporates special adaptations for checking individual sections of multi-purpose tubes. A jack is provided for headphones tests of noisy, swinging or high resistance connections. The standard model measures 12 x 6 x 8 inches and weighs eight and a half pounds.

Lockheed Cowl Flaps

Trans-Canada Air Lines is installing these new cowl flaps on Pratt & Whitney engines in all company operated Lockheed 14 and 18 aircraft. Designed by M. W. McLeod, for TCA, the flaps will replace original



equipment which has been found to require replacement every two hundred hours. The company expects to get four times as much service out of the new design.

Twelve individual flaps are divided into left and right hand banks of six flaps each, attached by bracket assemblies to an aluminum alloy extruded L section ring. The cupped end of each flap rotates on an aluminum alloy shaft bearing and contains a hinge assembly consisting of a rubber shock mount and a micarta bearing. Flaps are interconnected and operate simultaneously when the top flap of each assembly is actuated by a reversible electric motor. Weight of the new design is 25 pounds less than the flap assembly which it replaces.

Easy-Drain Gas Bowl



This pyrex glass gascolator bowl has a poppet-type drain valve which permits draining off sediment without removing the bowl. Approved by the CAA. It can be installed on any lightplane readily and without special tools. Manufacturer is Consolidair, Inc., Alliance, Ohio.

Airport Extinguisher Cart

Walter Kidde & Co., Belleville, N. J., has designed a wheeled cart containing three 15 pound carbon dioxide portable fire extinguishers. Wheelbase of the cart is 37½ inches. It features low center of gravity, perforated bottom for drainage, an all steel frame with lift cover, puncture proof rubber tires, and a foot plate for easy tipping.

Windshield Sun Visor

Consolidair, Inc., Alliance, Ohio accessories manufacturer, is marketing an adjustable sun visor consisting of a 6 by 12 inch sheet of heavy green plexiglas. The visor can be clamped to a tube in the fore part of an airplane cabin, or machine-screwed to the windshield fairing.

Protection for De-icers

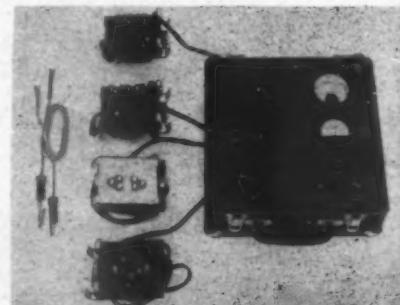
The B. F. Goodrich Co., Akron, Ohio, has developed a protective summer coating to be sprayed on rubber de-icers. Aluminum colored, it resists ultra violet rays and reflects solar heat. About a gallon and a half, weighing five pounds, is needed for DC-3 type de-icers. The coating can be peeled off with the return of cold weather.

Electrical Test Items

Airquipment Company is marketing two new testing devices for aircraft. One is a pocket size piece of equipment for checking voltage, current resistance and continuity. It provides a D. C. voltmeter with 0 to 30 volts, a D. C. ammeter with 0 to 30 amperes, and ohm meter with 100 ohms full scale and 5 ohms center scale, a continuity test light with 3 volt internal battery, and a 28 volt light for hunting hot circuits. The other device is a portable electrical analyzer for simultaneous check of generator voltage, field current, regulator, generator relay, instruments and wiring. Additional information available from Dept. H, Airquipment Co., 2820 Ontario St., Burbank, Calif.

Portable Voltage Regulator

This portable aircraft voltage regulator for accurate balancing of generator output on multi-engines planes is being offered by



Airquipment Co. The instrument has a two percent base accuracy plus sensitive adjusting mechanism for perfect synchronization. During flight, when sufficient loads can be applied, the instrument can be used for accurately paralleling generators. It can also be used for taking "voltage only" readings. Further data available from Airquipment Co., Dept. H, 2820 Ontario St., Burbank, Calif.

New Lubricant To Be Tested for Aircraft Use

Samples of silicone oil, which has been recommended over petroleum oils for certain uses because of low viscosity change with temperature and particularly because it is much less inflammable, have been ordered from the General Electric Co. by a large aircraft company.

The order is reported to be an outgrowth of CAB safety bureau studies of aircraft fires and resultant proposals that silicone oils be further tested for airline use.

General Electric is expected to have a new factory for the manufacture of silicone products ready for operation at Waterford, N. Y., by the end of this year.

Product Literature and Booklets

The Office of Technical Services, Department of Commerce, Washington, 25, D. C., has made public a hitherto secret booklet, published by the Army and Navy during the war and containing complete instructions for operating the lightweight airborne radar equipment (Model AN/APS-4). The 84 page handbook (Report PB-19246) available in photostat form for \$6, microfilm, \$1, carries a general description of the equipment, its installation adjustment and operation, with supplementary data and illustrations.

The Florida State Improvement Commission has compiled results of a survey of Florida seaplane facilities, now available in booklet form from the Commission offices, Box 149, Tallahassee, Florida. Findings of the commission, as well as data from the CAA and the Coast and Geodetic Survey, are included in the text. The booklet contains information of interest to seaplane operators, both local and transient.

Ice prevention through heated rubber protective coverings on aircraft surfaces is discussed and illustrated in a folder prepared by The B. F. Goodrich Co., Aeronautical Division, Akron, Ohio. Propellers, cowling, air scoops, antenna masts, pitot masts, spinner domes and other exposed surfaces are listed as using electrically heated rubber coverings.

The Blaw-Knox "Alumidoor" for airport buildings has been described in a new six-page folder which gives specifications, installation details and a number of illustrations. Available from Alumidoor Dept., Blaw-Knox Co., Blawnox, Pa.

A loose-leaf catalog (90 pages) describing more than 800 items of Airquipment tools and ground handling equipment is now available to the industry. Each item is pictorially described with applications, dimensions, weights and other pertinent data. One entire section is devoted to handling and servicing equipment for the Lockheed Constellation Model 49. Airquipment Co., Dept. H, 3820 Ontario St., Burbank, Calif.

The new Irvin "Chair Chute," which fits into the back of passenger or pilot seats and has the appearance of being part of a regular upholstered seat, is described in a circular available from the Irvin Air Chute Co., 1670 Jefferson Ave., Buffalo 8, N. Y.

Operations—Maintenance Personnel

Don G. MacDonald is new ground operations manager for UAL's eastern region. He has been with the company since 1929 except for a three year period with the AAF.

Jer. Maxwell has become flight superintendent for American Airlines' Western region operations with headquarters at Burbank, succeeding Waldo Goodyear who has gone to the American Overseas base at Shannon, Ireland. Maxwell formerly was flight superintendent at Fort Worth.

Edward "Red" Couples, one of PCA's senior captains, recently moved to Washington after nine years of flying out of Detroit.

David O. Easton, AA operations chief at Phoenix, recently celebrated completion of fifteen years of service with the company. Other AA men cited for fifteen year service are Capt. Bill Kessler of Memphis and chief mechanic Lewis Goss of Phoenix.

Donald S. Fowler, newly named United station manager at Catalina Island, is supervising system operations at that base. He was formerly with UAL stations at Oakland, Portland, San Francisco and Seattle.

Earl D. Isaacson has succeeded George Estill as cargo service procedures superintendent at Chicago. Estill was recently transferred to the headquarters staff of R. E. Pfennig, UAL regional v.p.-eastern operations.

John E. Kohler, former assistant station manager for United Air Lines in Boston has been named station manager at Lincoln, Nebraska. A nine-year veteran with UAL, Kohler returned from Navy service last fall.

Johnny Guy has been appointed assistant to R. L. Ellinger, senior TWA engineering representative at the Lockheed plant. Guy, who joined TWA more than 16 years ago, recently returned to the company after a brief period in private business.

Expand Service Depot

Hugh L. Smith, American Airlines resident manager in Oklahoma, has announced that beginning August 1 the company's Tulsa maintenance depot went into full operation. Using a former government modification plant at Tulsa Municipal Airport, the maintenance and overhaul shops now employ more than three hundred persons and are expected to have a payroll approaching 4,000 within two years. Except for engine overhaul, the depot will maintain and overhaul all company Flagships including DC-4s and new DC-6s.

Further carrying out the company's decentralization program, American has taken over the entire Bradford Hotel in Tulsa for the stewardess training school formerly located in New York. Classrooms and living quarters in the air conditioned hotel will be used for comprehensive five-weeks courses to groups of from 150 to 200 girls.

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LEADING AIRLINE, now flying four-engine equipment will purchase one Douglas C-54B, either modified or unmodified. Write or wire box 511, American Aviation, American Bldg., Washington 4, D. C.

Plan Mobile Air School For Tennessee Students

Plans for a mobile flight and ground school, to visit remote fields in the state of Tennessee and provide aviation training for war veterans and civilians, have been proposed by a group of 20 airline pilots, incorporated as the Dixie Air Associates, Memphis. The organization, with a capitalization of \$100,000, has leased a large building for headquarters at Memphis Airport and is to use five planes and a huge van equipped with ground school facilities, in the mobile program.

Herbert Fox, director of the Tennessee Bureau of Aeronautics, has recommended approval of the mobile aviation school on an experimental basis.

Ohio Flying Farmers

More than 400 flying farmers have organized in Ohio and will use Scott Field, at Ohio State University, as a base for operations. Ohio is the 17th state to have an organization of this kind. Officers of the group include Clifford Coffman, Carroll, president; William Grimes, Delaware, v.p.; and Myron Baker, Morrow, secretary-treasurer.

Include Shipping Cost

The cost of shipping fresh fruits and vegetables by air may be included in ceiling prices until December 31, according to a ruling by OPA. Permission to pass on the added cost of air shipment of foods was instituted by OPA, more than a year ago when such transportation was in the experimental stage. The office of OPA has announced that air shipment of foods in 1945 was negligible but appears to be increasing this year.

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